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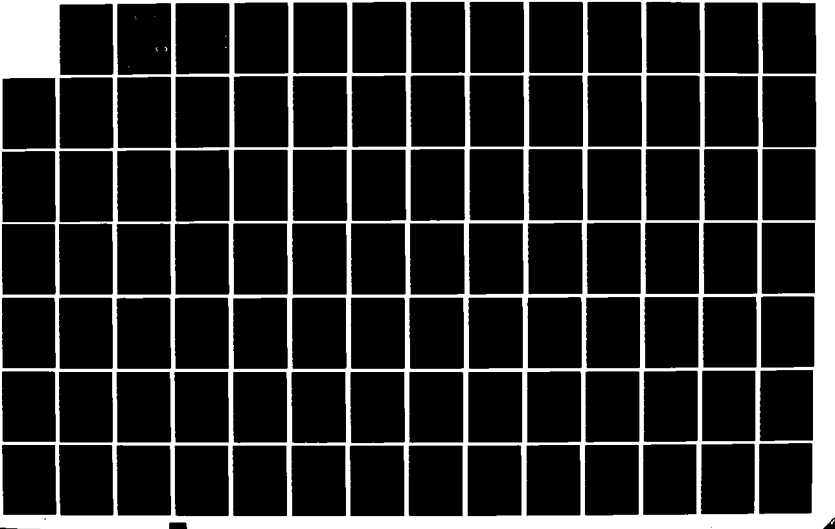

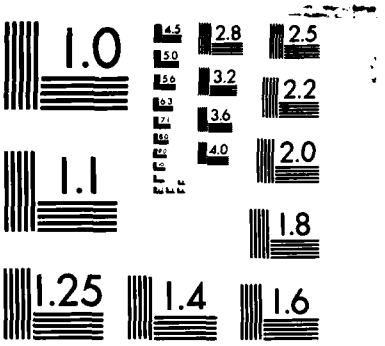

Perceptions of the Educational Coordinator's Role in the Navy Medical Department

LT Timothy P. Steele, MSC, USNR
CDR Sandra A. Holmes, NC, USN
LCDR Janet L. Higgins, MSC, USN
CDR Karen A. Rieder, NC, USN

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Naval School of Health Sciences
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This report presents the results of a survey study intended to identify and compare perceptions of the Educational Coordinator's (EC) role within Navy hospitals from the perspectives of incumbents and key role-senders. Specific topics of concern were: identifying appropriate functions and organizational structure of hospital education departments; assessing the extent of EC role conflict and career concerns; identifying appropriate educational preparation for ECs; and identifying attitudes toward education

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and training, in general, and at each of the 31 naval hospitals studied. The sample consisted of the commanding officers, executive officers, directors of administration, directors of nursing service, and the EC at each study site. Additionally, 476 Nurse Corps officers were randomly selected from the same set of hospitals. Results showed, in general, agreement among sample subgroups regarding the appropriate functions and structure of the EC position. Currently, however, there appears to be considerable variability in educational department structure at different hospitals. The report concludes with specific recommendations for increasing the efficiency and effectiveness of hospital education.

PERCEPTIONS OF THE EDUCATIONAL COORDINATOR'S ROLE IN THE NAVY MEDICAL DEPARTMENT

LT TIMOTHY P. STEELE, MSC, USNR
CAPT SANDRA A. HOLMES, NC, USN
LCDR JANET L. HIGGINS, MSC, USN
CDR KAREN A. RIEDER, NC, USN

Research Department
Naval School of Health Sciences
Bethesda, Maryland 20814-5033

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appropriately). The purpose of this pilot test was to assess the clarity of items in the EC task inventory, determine the reliabilities of the two scales measuring attitudes toward education, and evaluate response formatting for ease and accuracy of data entry.

Based upon the results of the pilot test, the content and format of the questionnaire were finalized. At this time, the eight-item role conflict scale developed by Rizzo, House and Lirtzman (1970) was added to the set of questionnaires sent only to ECs. The scale was scored using a 5-point response mode ranging from "Very False" to "Very True" and by averaging across items. Higher scores represent greater perceived stress. Since this scale has consistently proven to be a valid and reliable measure of role conflict and because of its wide usage in role theory research (Rosenkrantz, Luthans, and Hennessey, 1983), development of another scale to measure this construct was unnecessary.

Prior to its administration to the Navy sample of interest, the questionnaire was granted final approval for circulation by the Chief of Naval Operations (OP-01) and the report control symbol OPNAV 60-10-02 OT was assigned.

Appendix A contains a listing of all items and rating scales that were subjected to analysis. (Discrepancies in item numbering are due to rearranging items by content area and the omission of selected items. Some items were omitted from the list since they were not relevant to the objectives of this report.)

The items were all worded from the common stem, "The education coordinator should:", followed by a specific task or activity an EC might be expected to perform. As an example, "The educational coordinator should: prepare written plans of educational objectives and priorities." Each statement contained a five-point response scale anchored at each step by numbers ranging from 1 to 5 and by verbal definitions ranging from "Strongly Disagree" through a neutral point to "Strongly Agree".

Part Two included a series of fixed alternative items to measure various sample demographics that might influence responses or serve as grouping variables such as rank, billet, corps, months in present job, and educational attainment. In addition, Part Two included items designed to identify career concerns, map existing and desired education department structure, and determine perceptions of what the educational preparation for EC's should be.

Part Three of the questionnaire consisted of statements designed to form two indexes of attitudes toward education and training in hospitals. The first index was developed to assess personal perceptions of the value of hospital education and training activities in general. The second index was composed of statements intended to elicit perceptions of the current status of the education and training system in respondents' present hospitals. All items in this section employed the same 5-point rating scale and verbal anchors as used in Part One.

Following this initial development, the questionnaire was administered to a convenience sample of 41 Army nurses (with Navy terminology modified

Method

Questionnaire Development

Consistent with the research objectives outlined, a preliminary version of the questionnaire was developed containing three basic parts. Part One was comprised of items designed to assess perceptions of what an Educational Coordinator (EC) should or should not do on the job. The primary objective in the development of this portion of the questionnaire was to obtain a comprehensive inventory of EC job duties or tasks that had been advocated from a variety of knowledgeable sources or had been traditionally performed by ECs.

A majority of the items in this section were adapted from a 1976 survey of hospital educators conducted by the Hospital Research and Educational Trust (HRET) (Dunkel, 1978). The HRET task inventory was derived from three sources: 1) literature review, 2) reports from 33 education and training directors, and 3) interviews with six educators from health care institutions. The original HRET survey required respondents to indicate the frequency with which they performed 74 discrete tasks. Responses to the survey were used as a basis for determining the curriculum for educators in health care institutions. For this study of the Navy medical environment, additional task items were derived from interviews with previous Navy ECs and suggestions from other Navy content experts.

In October of 1983, shortly after the conference of nurse educators, a change transmittal to the reorganization plan was published that elevated the command EC position from the division level to departmental status (NAVMEDCOMINST 5450.1 CH-1).

Purpose of Study

The primary purpose of the present exploratory, descriptive study was to identify and compare existing perceptions of the EC role within Navy hospitals from the perspective of incumbents and a sample of constituents, including executives, administrators, and clients. In addition, an attempt was made to identify areas of perceptual congruity/incongruity between ECs and their reporting seniors.

Other research objectives suggested by the review of the literature were to:

1. Identify the extent of role conflict experienced by EC incumbents and assess its relationship with differences in role perceptions between the EC and his/her supervisor.
2. Identify attitudes toward education and training in general, and at each hospital sampled, as a means of estimating management support and the perceived efficacy of hospital education and training, respectively.
3. Identify the current education department structure at each naval hospital and assess what various constituents believe the organizational structure should be.
4. Identify what EC incumbents and constituents think the appropriate educational preparation for ECs should be.
5. Assess the extent of various EC career concerns, such as burnout, career potential, and general desirability of the position.

reorganization of hospital education departments) from naval medical facilities around the world the following problem areas were enumerated: 1) A wide variance exists in roles and functions of the EC between commands; 2) ECs are frequently tasked with many unrelated projects; 3) Many coordinators are placed in the role without proper preparation and background; 4) Senior admini- strators lack insight into the nature and requirements inherent in education; 5) The Nurse Corps is experiencing a shortage of qualified officers to fill the EC role; and 6) Because the EC position is seen as a career dead-end, experienced nurses are opting to leave the role in favor of a position in administration.

This lack of role definition and diversity of role perceptions had served to fragment a potentially viable program for improving nursing personnel competency. With the recent reorganization of hospital education in the Navy to a hospital-wide function, solutions to these problems were imperative. However, a subsequent 1983 conference for nurses in education billets revealed continuing concerns and widespread dissatisfaction with the reorganization plan and its implementation. One of the primary concerns with the reorganization plan was the location of the command EC position within the hospital hierarchy. Nurses attending the conference felt that the EC position had been given extensive formal responsibilities (e.g., eight subordinate branches and hospital-wide responsibility for all non-physician personnel), yet inadequate official status to be viewed credibly or perform effectively. In short, authority was considered incommensurate with both position responsibility and the knowledge and experience level required of any qualified incumbent.

Despite the proliferation of increasingly stringent regulations and guidelines for staff education and training, the requirements remain fairly general and are open to wide differences in interpretation (Cantor, 1975; Eldridge, 1980; Rockwell, 1971a). Therefore, individuals involved in staff development endeavors may be "placed in untenable positions with unrealistic demands made on their time and talents" (Tobin, 1976, p. 42). The circumstances may become even more complex for the EC in the Navy setting because of the rotation and transition to different facilities approximately every three years. The incumbent may have to take over a role for which his/her predecessor had a significantly different role concept. Consequently, the EC must modify the old role, or promote and sell a new role. This requires continual interchange, modification, and classification of perceptions and expectations. This developmental process can be costly not only in terms of productivity, but psychologically as well. If this process is impeded or otherwise unsuccessful, role-conflict can result. The condition in which two or more sets of incompatible role expectations operate is frequently referred to as role-conflict (Schuler, et al., 1977). The consequences of role-conflict are tension, job dissatisfaction, and a propensity to leave the situation (Bedeian and Armenakis, 1981). To compound the situation, personnel may be placed in the role of the EC without proper preparation and background (Clark, 1979; del Bueno, 1972; Epstein, 1977: Medearis and Popiel, 1971; Rockwell, 1971a; Schechter, 1974; Stevens, 1980).

The problems described in the civilian literature are well reflected in the military environment. At a 1982 workshop for ECs (prior to the

As noted earlier, nurse educators were tasked more frequently with responsibility for the education and training of personnel outside the traditional boundaries of nursing. Even in those hospitals where hospital-wide education was established as a department reporting directly to the administrator, spanning traditional boundaries was difficult. Sharp (1980) related the difficulties involved in the case of several hospitals which had made this transition:

> Despite initial groundwork with everyone concerned there were real problems with role identification. The education director (EC) identified with nursing, the nursing director identified the education director with nursing, and department heads and administrators appeared to do the same thing. They consulted the education director only on questions pertaining to nursing. Education directors also seemed to have a difficult time relating to department heads on a peer basis. (p. 4)

Concomitantly, descriptions of the EC role are as numerous as the expectations and tasks associated with the position (Ganong and Ganong, 1980; Marenco, 1978; Oppman, 1979; Poole, 1977, 1979; Simonds, 1975; Sovie, 1980). In spite of this, a review of the literature indicated that there has been negligible research on how the role of the EC is perceived in health care settings. Only one study (Sharp, 1980) of the perceptions of the role of hospital-wide education directors was found. This study, which included 18 hospitals, found contrasting perceptions of the EC's role functions between administrators, incumbents in the EC position, and other department heads. In addition, there were differences in perceptions based on hospital size. The results of this study, however, are difficult to generalize because of the small sample employed.

role behavior. All of the role-senders together become the role set for each role (Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 1964). However, Miner (1971) maintains that supervisors in the organization are the role-senders who are most important and exert the greatest influence.

Kast and Rosenzweig (1974) have identified three major confounding variables that influence role perceptions, expectations, and prescriptions: 1) attributes of the individual filling the role such as motivation and capability, 2) interpersonal influences, and 3) organizational factors. One of the primary organizational factors is the job description which delineates specific duties the role occupant is expected to perform. Unfortunately, as position responsibility increases, job descriptions frequently become less specific, describing more responsibilities and fewer specific tasks (Stevens, 1980). Moreover, individuals occupying specialized roles, newly created, or multi-faceted positions may not only have ill defined job descriptions, but may in fact be required to develop their own over time.

As the health care delivery system increased in complexity, there was a concomitant demand for more specialized nursing. Consequently, the profession was confronted with a multitude of new or expanded roles. To some experts staff development itself is viewed as a specialty, and the EC position is one of the newly expanded roles (Collum, 1980; Coye, 1977; Knowles, 1980). The former role of nursing inservice instructor has in many instances evolved from that of teacher to manager and educational specialist.

priorities they hold with regard to education (Bass and Vaughn, 1966; Latham and Wexley, 1981). The resultant airing of views and values provides the direction necessary for developing coherent practice and procedure throughout the organization.

The Role of the Educational Coordinator

The foregoing outline of the evolution of hospital education has provided a framework for tracing the growth of the role of the EC. However, prior to proceeding further, a brief digression is in order to discuss a definition of "role" and outline several basic axioms of role theory. "Role", for the purposes of this study, is defined as "the set of prescriptions defining what the behavior of a position member should be" (Biddle and Thomas, 1966, p. 29). Roles "serve as the boundary between the individual and the organization", and "represent the expectations of the individual and the organization" (Schuler, Aldag, and Brief, 1977, p. 111). The concept of "expectations" is key to an understanding of role development, particularly within the organizational environment. Benne and Bennis (1959) have identified four principle sets or sources of expectations: 1) the official expectations from the institutional hierarchy, 2) the expectations of colleagues and peers, 3) the expectations of significant reference groups outside the work situation, such as professional organizations (e.g., the American Nurses Association), and 4) the individual's own self-expectations or role-image. Role-senders are persons who have expectations for an individual occupying a particular role, provide information, and attempt to influence

Yet, despite the misgivings of various constituents, even as far back as 1975 a study by Inservice Training and Education indicated that 41 percent of the responding hospitals had instituted hospital-wide education departments. Since that time the trend has continued. In the Navy Medical Department the education function within hospitals was reorganized into a hospital-wide education division in May of 1983 (NAVMEDCOMINST 5450.1).

Although the establishment of a command education division within Navy hospitals is generally consistent with the trend in the civilian sector, the integrity, coherence, and acceptability of the specific instruction have yet to be systematically evaluated. One of the most critical structural considerations is the "fit" between the degree to which centralization in decision-making exists within the hospital hierarchy and within the education department. Munk and Lovett (1977) discuss this issue in detail, but essentially conclude:

> It is important to realize that education and training functions that are either more or less centralized than the institutions in which they operate rarely will be effective. If the education function is less centralized than its institution, the function often will be perceived as weak and unimportant... ignored by line managers. On the other hand, if an education function is more centralized than the hospital in which it operates, educational efforts will be viewed as inappropriate central control...line managers are not likely to submit a portion of their responsibilities to control by the training staff and will resist efforts of the staff to be involved with their departmental operations. (p. 29)

A recommended approach for determining the appropriate structure and function of hospital education and training is to work directly with top executives and managers to identify the managerial philosophy, goals, and

the director of nursing but had been given the overall responsibility for hospital-wide education" (p. 3). The Nursing Service Education Coordinator had become the defacto hospital-wide Education Coordinator (EC). However, the support necessary, both attitudinally and structurally, to perform effectively was seldom forthcoming (King, 1978; Rockwell, 1971b; Schecter, 1974). The human, physical, and budgetary resources available for education and training remained at previous levels, while resource requirements escalated.

Hospital-Wide Education

The transition and expansion of education and training activities to hospital-wide responsibility has not occurred without difficulty. In addition to the problems with obtaining and retaining qualified personnel and the lack of role definition, there has been significant resistance by physicians, nurses, and hospital managers towards establishing hospital-wide education departments. Parochial views of the appropriate organizational structure of education and training, sustained by political and territorial insecurities, have impeded efforts to rationally identify and implement optimal structuring. Nursing resistance stems from concerns about "control, quality and quantity of programs, needs identification, communication, and accountability" (King, p. 14). Hospital administrators are concerned with the areas of accreditation and documentation, coordination of educational programming, and cost containment (King, 1978). These concerns have stymied progress in the evolution of the role of education within the hospital hierarchy and undermined top administrative support (Grubb, 1981).

Historical Overview

The Origins of Inservice Education

As diploma nursing programs declined throughout the 50's and 60's, hospitals developed inservice education to meet the ongoing educational needs of nurses. It was not uncommon that instructors from phased out diploma programs became inservice educators, thus providing nursing departments with the ability to provide instruction as necessary (Sharp, 1980). By 1970, 93 percent of the hospitals responding to a survey by RN magazine had established nursing inservice programs (Rockwell, 1971b). However, the variety of activities conducted under the rubric of inservice education varied considerably from hospital to hospital. These activities ranged from such commonly conducted programs as orientation of new personnel, training in new or revised patient care procedures, and instruction in the operation and care of equipment to the less common activities of human relations training and supervisory development (Munk and Lovett, 1977). This lack of clarity and standardization regarding the role and content focus of inservice education was further aggravated by the need to provide increased attention to personnel other than nurses (Battles, 1976; Munk and Lovett, 1977).

As these educational needs emerged and expanded beyond nursing service, the organizational support structure frequently lagged behind. Sharp (1980) noted that many hospitals established single person departments of education, frequently staffed by nurses "who reported to

Problems with both structure and function have been particularly acute with regard to the position of the Educational Coordinator (EC). At the inception of this study there appeared to be wide variance in perceptions of the role and responsibilities of the EC both within and between Navy Hospitals. However, since that time the EC position responsibilities have been formally increased to encompass not just nursing service, but the education and training of all non-physician personnel hospital-wide (NAVMEDCOMINST 5450.1).

The purpose of this research report is to present the background, method, and results of an empirical survey designed to assess current perceptions of the role of the EC within the Navy Medical Department. The report begins with a brief overview of the history of hospital education and training and a discussion of the evolution of the role of the EC and the problems coincident to that evolution. Following this historical overview and discussion, the conduct of the study and subsequent findings are described. Finally, the practical implications of the results are discussed and recommendations are made for future consideration. Information from this study could be used to: 1) refine and optimize the organizational structure of hospital command education departments; 2) identify the duties, tasks, and responsibilities of the EC; 3) reduce unrealistic and incongruent expectations regarding the role of the EC; 4) ensure the proper preparation and background of personnel prior to assuming the EC position; and 5) ensure better utilization of personnel in hospital education.

PERCEPTIONS OF THE EDUCATIONAL COORDINATOR'S ROLE WITHIN THE NAVY MEDICAL DEPARTMENT

Introduction

A recent review of the literature on education and training in health care identified two predominant issues: 1) the increasing relevance of hospital education and training, and 2) the need to clarify the roles and responsibilities of hospital educators (Grubb, 1981). These findings are especially applicable to the Navy Medical Department. Rapid changes in the technology, administration, and delivery of health services, coupled with greater emphasis on accountability underscore the need for educational support within Navy hospitals to maintain high levels of professional competence and performance. In addition, the training requirements of the Joint Commission on Accreditation of Hospitals (JCAH) have expanded over the last decade and a half to include many areas other than the traditional field of nursing. This evolution in the relevance and breadth of educational requirements, however, has not been accompanied by any systematic guidance concerning optimal education department structure or specific duties and responsibilities of key positions. Thus, there is considerable potential for variation in education and training operations between facilities. This lack of standardization is problematic within the military where uniformity in organization and role expectations is fundamental to effective mission accomplishment.

Study Sites

The data were collected at 31 naval hospitals worldwide. Hospitals were categorized into the following four groups based on both size and teaching status: 1) residency teaching hospitals; 2) family practice hospitals, 3) medium size hospitals, and 4) small hospitals. Table 1 identifies the hospitals sampled by category and provides descriptive statistics for hospital size.

Average daily patient load (ADPL) was used to group the hospitals by size. It was selected as a surrogate for size because it was considered to be a more accurate representation of current operations within hospitals than the number of authorized operating beds (OPBEDS). As it turned out, however, the correlation between ADPL and OPBEDS was .99.

The functional distinctions between residency teaching hospitals, family practice hospitals, and other hospitals were easily made. However, an examination of the ADPL means in Table 1 indicates that grouping these hospitals by teaching differences also places them in fairly distinct size categories as well. That is, teaching hospitals are the largest hospitals. Family practice hospitals are, on the average, somewhat larger than most other hospitals. The remaining hospitals were classified as "medium size" if ADPL was greater than 50, and as "small" if ADPL was less than 50.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF ADPL BY
TEACHING STATUS AND SIZE CATEGORY FOR 31 NAVAL HOSPITALS

Teaching Hospitals (N=4)		
NH San Diego, CA		
NH Portsmouth, VA	Category ADPL $\bar{x}$ =	359.63
NH Bethesda, MD	Category SD =	85.77
NH Oakland, CA		
Family Practice Hospitals (N=5)		
NH Charleston, SC		
NH Jacksonville, FL		
NH Camp Pendleton, CA	Category ADPL $\bar{x}$ =	122.80
NH Pensacola, FL	Category SD =	36.83
NH Bremerton, WA		
Medium Size Hospitals (N=11)		
NH Long Beach, CA		
NH Great Lakes, IL		
NH Camp Lejeune, NC		
USNH Okinawa, JA		
NH Newport, RI	Category ADPL $\bar{x}$ =	84.77
NH Orlando, FL	Category SD =	37.15
NH Philadelphia, PA		
USNH Subic Bay, RP		
NH Millington, TN		
USNH Yokosuka, JA		
USNH Naples, IT		
Small Hospitals (N=11)		
NH Groton, CT		
NH Beaufort, SC		
NH Corpus Christi, TX		
USNH Guam, MI		
UNSH Roosevelt Rds, PR	Category ADPL $\bar{x}$ =	26.39
USNH Rota, SP	Category SD =	14.64
NH Cherry Point, NC		
NH Lemoore, CA		
NH Oak Harbor, WA		
USNH Guantanamo Bay, CU		
NH Patuxent River, MD		

Note: Statistics are based on data from the Inpatient Data System for the year ending 31 December 1983.

Sample and Procedure

In July 1984 a letter was sent to the commanding officers of the 31 selected study sites explaining the purpose of the study and the intended

sample composition, and requesting their cooperation in the conduct of the study. The questionnaires were then mailed in August to the commanding officer, executive officer, director of administration, director of nursing service, and the EC at each of the 31 study hospitals. These individuals were canvassed not only because of their knowledge of the EC position, but also because of the powerful influence they can bring to bear on the functioning of the position. In addition to the above personnel, 476 Nurse Corps officers, randomly selected from the same set of hospitals (less any selected from the foregoing categories), were sent questionnaires.

Each questionnaire contained an overview that outlined the purpose of the survey and its general format, and provided general instructions that defined what was meant by "Educational Coordinator". For the purposes of this study, "Educational Coordinator" was defined as the Head of the Education Department or Division at the respondent's command or as the senior person in charge of education; "Education" was described as encompassing orientation, inservice education, staff development, continuing education, and like components. Each respondent was provided with a disclosure statement indicating that participation was voluntary, that individual confidentiality would be maintained, and that study results would be made available upon request. Respondents were also cautioned against responding to items in a "socially desirable" way. Study participants returned the questionnaires by mail directly to the researchers in provided, preaddressed envelopes.

The questionnaires and return envelopes were coded for tracking purposes to provide a basis for contacting non-respondents. In September a personalized follow-up letter was sent to each non-respondent in the random sample to encourage participation and/or verify receipt of the questionnaire. By the October cut-off date, 429 out of 631 questionnaires were returned, yielding an overall response rate of 68 percent. Table 2 summarizes the response rates for each job group sampled.

Six levels of rank were represented in the sample. The distribution of respondents included 59 captains, 80 commanders, 112 lieutenant commanders, 113 lieutenants, 23 lieutenants junior grade, and 42 ensigns. Corps membership was distributed as follows: 24 Medical Corps, 38 Medical Service Corps, 366 Nurse Corps and 1 Dental Corps officer. With regard to educational attainment, the bachelors degree was the predominant terminal degree, representing 55 percent of the total sample. It was followed by the masters degree at 28 percent, nursing diploma at 10 percent, and doctorate or post doctorate at 6 percent. The average length of respondents' service in their current jobs was 15 months. (In Appendix B, Tables 1B through 5B provide detailed demographic breakdowns of each major job group surveyed on the variables of rank, corps membership, educational attainment, months on the job, and size of present hospital. In addition, Tables 6B through 8B show breakdowns of the same variables on the basis of hospital size and teaching status. For those readers interested in the characteristics of the random sample of Nurse Corps officers see Tables 9B through 12B.)

TABLE 2

SAMPLE BREAKDOWN AND SURVEY RESPONSE RATES
BY JOB GROUP AND HOSPITAL SIZE

	Large Teaching	Family Practice	Medium Size	Small	Total
Commanding Officers					
Sampled n(% of population)	4(100%)	5(100%)	11(100%)	11(100%)	31(100%)
Returned n(% of sample)	2(50%)	2(40%)	8(73%)	7(64%)	19(61%)
Executive Officers					
Sampled	4(100%)	5(100%)	12(100%)	11(100%)	32(100%)
Returned	3(75%)	4(80%)	12(100%)	7(64%)	26(81%)
Directors of Administration					
Sampled	4(100%)	5(100%)	11(100%)	11(100%)	31(100%)
Returned	4(100%)	3(60%)	6(55%)	5(45%)	18(58%)
Directors of Nursing Services					
Sampled	4(100%)	5(100%)	11(100%)	11(100%)	31(100%)
Returned	4(100%)	5(100%)	10(91%)	9(82%)	28(90%)
Educational Coordinators					
Sampled	4(100%)	5(100%)	11(100%)	11(100%)	31(100%)
Returned	4(100%)	5(100%)	10(91%)	10(91%)	29(94%)
Nurse Corps Random Sample					
Population N	1045	471	672	322	2510
Sampled	210(20%)	80(17%)	127(19%)	59(18%)	476(17%)
Returned	120(57%)	57(71%)	88(69%)	44(75%)	309(65%)

Major Statistical Analyses

The EC task inventory was subjected to both factor analysis and cluster analysis to identify broad categories of EC functions. Analysis of variance was performed on each of the resulting task items using sample subgroups of job group, hospital size, and nurse billet as independent variables. Significant overall F ratios from the analysis of variance were further examined with the Scheffe procedure for multiple comparisons. In addition, paired t-tests were conducted on the responses of the ECs and their self-designated immediate supervisors on all task items to assess the extent of differences in perceptions of the role of the EC.

Analysis of variance and Scheffe comparisons were also used to compare the sample subgroups on attitudes toward education in general and attitudes toward education at the respondents' present hospital.

Results

Task Inventory Analysis

The first objective of this study was to describe the role of the EC within Navy hospitals from the perceptions of current ECs and a sample of constituents. Since the number of task items ultimately included in the questionnaire was large, an attempt was made to empirically derive a smaller set of items to ease the interpretive load. The reduced item set was then rank ordered based on the responses of the total sample.

As discussed previously, the literature indicated there may be strong reservations on the part of both nursing and hospital administrators regarding the most effective structure and functions of hospital education. In addition, given the general clamor for cost containment and the drive to boost productivity through limiting system inputs, hospital executives may not be fully committed to education and training either philosophically or in terms of resources (e.g., personnel, equipment, dollars). Thus, it was considered important to compare the responses of the various sample subgroups. It was also considered worthwhile to compare responses based on hospital size and teaching mission since hospital size had previously been found to account for variation in respondents' role perceptions (Sharp, 1980). The results of each of these analyses will be described in turn.

Subscale Development. Initially, an exploratory principal components factor analysis was conducted on the 91 task items of the EC task inventory as a means for identifying the number of underlying task categories represented in the inventory. The identification of underlying task domains was desirable since development of subscales would increase the reliability and interpretability of findings. The factor analysis produced 28 factors, 14 of which might be considered trivial (i.e., the factor did not have at least two or more loadings above .45). In addition, 47 task items did not load clearly on any single factor. Given that the present inventory of EC tasks had been determined to be content valid by subject matter experts, it was considered inappropriate to delete items that did not load distinctly on any factor. Thus, for purposes of subcategory development the factor analysis was not helpful.

Following the factor analysis, a cluster analysis of the EC task inventory was performed using the "VARCLUS" procedure from the Statistical Analysis System (SAS) (1982). The purpose of the cluster analysis was to place the task items into groups suggested by the obtained data, in contrast to being defined in advance. In this way the task items within each group would tend to be similar, and the task items within different groups would tend to be dissimilar. One general advantage of cluster analysis over factor analysis is the increased interpretability of results when used as a variable reduction method. One general disadvantage of the method, however is that it uses an iterative procedure that begins with all variables in a single cluster, successively splits each cluster, and iteratively reassigns variables to clusters to maximize the explained

variance. Since this can be quite expensive in terms of computer time, the results of the previous factor analysis were used to "seed" the VARCLUS procedure (SAS, 1982, p. 465).

Analyzing the covariance matrix and using a criterion of 70 percent of variation to be explained by the cluster centroid components, VARCLUS produced 78 clusters. Twelve of the 78 clusters consisted of two task items each, one cluster consisted of three task items, and the remaining 65 clusters each consisted of only one original task item. An examination of the item content of the 13 multiple-item clusters revealed that the cluster analysis had indeed produced groupings of homogeneous task items. However, a further reduction in the number of clusters formed was desired. Thus, a less stringent criterion of 60 percent of variation to be explained was imposed during a second cluster analysis.

The results of the second cluster analysis proved to be disappointing. Although there was a desired decrease in the total number of clusters formed, the task item composition of many of the clusters did not make practical sense. That is, the task items grouped together in a number of the multiple-item clusters were clearly dissimilar in content. Any scales formed by combining these items would have been uninterpretable. Because of this, the original 70 percent criterion was retained.

Although the original cluster analysis resulted in only a small reduction in the number of tasks to be considered in subsequent analyses (from 91 task items to 78 "clusters"), even this small reduction was

considered helpful. Indexes or scales were created for each of the 13 multiple-item clusters from the initial clustering procedure by summing the individual task item scores and dividing the resultant sums by the number of items within each cluster. This placed the values of these 13 scales or "composite" tasks back into the original task item metric range of 1 to 5. The task statements to be associated with each new composite score were derived from the basic content of the individual task items that were averaged to form the composite score. For each of the 13 composite tasks, Table 3 identifies the original task items from which the composite was formed, the percentage of variance accounted for, and a reliability estimate (Cronbach's alpha). No reliability estimates for the remaining 65 task items could be computed since they were single item measures.

Multiple Comparisons Between Job Groups. The means of the final set of 78 task items for the total sample and for each of the separate job groups sampled are presented in Table 4. The task item statements are included to facilitate interpretation of the subgroup responses.

Because of the large number of exploratory comparisons made, the Scheffe method for multiple comparisons was used. This method is one of the most conservative of the multiple comparison methods available, and leads to the smallest number of falsely declared significant differences (Winer, 1962). Although the Scheffe method may yield too few significant differences, the basic purpose for performing the comparisons was to flag items for the readers' attention.

TABLE 3

CONTENT, PERCENTAGE OF VARIANCE ACCOUNTED FOR, AND RELIABILITY OF COMPOSITE TASK SCALES

	Composite Task Statements	Items[a] Included	Variance Accounted for	Cronbach's Alpha
1	Upgrade his/her own personal knowledge and skills in the educational field.	31,41	.71	.60
2	Prepare and manage the education and training budget.	4,15	.83	.80
3.	Plan the arrangement or management of education and training department spaces, furniture, and equipment to meet changing work requirements.	47,84	.80	.75
4.	Maintain records documenting staff participation in educational programs.	45,52,67	.79	.84
5.	Plan and document certification, recertification, and licensure of staff personnel.	66,68	.79	.74
6.	Plan and evaluate the effectiveness of orientation/ indoctrination programs for new personnel.	71,72	.80	.74
7.	Develop criteria and design evaluation instruments for education and training materials and/or programs.	29,34	.78	.72
8.	Serve as resource and provide opportunities to share information with hospital personnel regarding continuing education activities and programs.	85,86	.72	.60
9.	Assess the need for and plan patient education programs.	33,55	.83	.80
10.	Develop proposals and conduct research to evaluate the impact of education department programs on quality of patient care.	13,50	.76	.68
11.	Mediate differences among other unit managers and among other hospital staff.	11,58	.69	.76
12.	Plan task analysis studies to help specify the skills and knowledge required for various health care provider jobs in the hospital.	64,65	.79	.73
13.	Assess and analyze employee learning needs using multiple sources of written information, personal observations, incident/accident reports, qualtiy assurance reviews, and anecdotal notes.	79,87	.73	.63

[a]See Appendix A for associated task item wording.

It should be mentioned that sometimes relatively large deviations between means are not identified as significant. This can be counter intuitive, particularly when conducting multiple comparisons where

relatively small mean differences are significant and larger mean differences are not. This is statistically due to unequal sample sizes in the comparison groups. The degree of uncertainty in each comparison increases as sample size decreases. A failure to reject the null hypothesis that two sample means are equal does not imply that the population means are in fact equal. It implies only that the difference between population means, if any exists, is simply not large enough to be detected with the given sample size. In any case, concern for differences of practical significance should override attention to statistical significance in this study.

The comparisons were made between the task item means for each job group surveyed. Total sample means have been included in Table 4 primarily as a mechanism for rank ordering and listing the task statements in a reasonable way. It should also be noted that the weighting scheme used was essentially one of convenience. In this study each respondent, regardless of job group membership, was given equal weight in the calculation of total sample task item means. Since nurses comprised the greatest proportion of respondents, total sample means were most influenced by nurses as a job group. An alternative method could have been to compute a grand mean by averaging job group means, thereby giving each job group, as opposed to each respondent, equal weight. Justification for this latter method, or any other method of differential weighting, would have been problematic.

EC TASK INVENTORY ITEM MEANS AND MULTIPLE COMPARISONS BY SAMPLE JOB GROUPS

		Total Sample	A Commanding Officers	B Executive Officers	C Directors of Administration	D Directors of Nursing Services	E Educational Coordinators	F Nurse Corps Random Sample
1.	Supervise the activities of the training and education department.	4.80	4.84	4.88	4.94	4.93	5.0	4.75
2.	Prepare written plans of educational objectives and priorities.	4.67	4.53	4.73	4.72	4.86	4.75	4.64
3.	Make available a variety of education and training resources for the use of hospital staff.	4.66	4.08	4.46	4.61	4.82	4.86	4.65
4.	Develop and maintain a system for recording data about the education and training of personnel.	4.53	4.74	4.73	4.83	4.68	4.89[F]	4.44
5.	Read books, magazines, journals, and catalogues to keep current on education and training.	4.50	4.36	4.27	4.33	4.61	4.79	4.51
6.	Select education and training material and equipment.	4.48	4.47	4.23[E]	4.50	4.71	4.93[F]	4.44
7.	Prepare and distribute notices, bulletins, newsletters, and other educational information to the hospital staff.	4.47	4.53	4.42	4.72	4.86	4.71	4.40
8.	Prepare and manage the education and training budget.	4.45	4.76	4.48	4.92[F]	4.88[F]	4.79[F]	3.34
9.	Upgrade his/her own personal knowledge and skills in the educational field.	4.44	4.34	4.21[DE]	4.36	4.68	4.70	4.42
10.	Plan and evaluate the effectiveness of orientation/indoctrination programs for new personnel.	4.43	4.37	4.11[D]	4.28	4.57	4.39	4.34
11.	Evaluate education and training literature and related instructional materials.	4.42	4.42	4.35	4.72	4.68	4.64	4.37
12.	Maintain in-house educational course content materials.	4.40	4.58	4.19[D]	4.67	4.71[F]	4.50	4.35
13.	Prepare and distribute questionnaires to obtain staff input about educational needs and offerings.	4.35	4.37	4.12	4.28	4.57	4.39	4.34

NOTE 1. Task inventory items are rank ordered on the basis of total sample item means.

NOTE 2. Letters within columns designate a significant difference ($P \leq .05$, Scheffe' method) between the item mean in the column and the noted comparison group. Item standard deviations for each subgroup are available on request.

			A	B	C	D	E	F
14.	Develop training and education activities and/or services in response to requests from department heads.	4.34	4.42	4.27	4.44	4.57	4.29	4.32
15.	Plan staff training and education programs.	4.34	4.21	4.15	4.44	4.39	4.61	4.33
16.	Inform management and administration of new developments in education and training.	4.33	4.32	4.31	4.50	4.71	4.50	4.28
17.	Maintain records documenting staff participation in educational programs.	4.33	4.46	4.37	4.70	4.67[F]	4.52	4.24
18.	Record/report training and education expenditures to the administrative department.	4.31	4.37	4.38	4.33	4.75	4.50	4.24
19.	Serve as resource and provide opportunities to share info with personnel regarding continuing education activities and programs.	4.30	4.08	3.98[DE]	4.06[D]	4.55	4.46	4.31
20.	Assist others in planning and developing instructional programs and/or materials.	4.29	4.26	4.08	4.50	4.39	4.46	4.27
21.	Develop criteria and design evaluation instruments for education and training materials and/or programs.	4.28	4.34	4.29	4.33	4.57	4.46	4.23
22.	Initiate or respond to correspondence regarding training and education department procedures, activities, and services.	4.27	4.47	4.19	4.61	4.64[F]	4.71[F]	4.18
23.	Review changes in hospital policies and procedures to determine their effect on the education department.	4.26	4.16	3.96[E]	4.28	4.54	4.64	4.23
24.	Talk informally with department heads and administative staff in order to determine possible education and training activities.	4.25	4.21	4.27	4.44	4.25	4.57	4.21
25.	Prepare written reports about the education and training of personnel for the administrative and/or other departments.	4.25	4.63	4.38	4.61	4.54	4.39	4.16
26.	Operate a learning laboratory for CPR training and IV practice and certification.	4.23	3.95	3.88	4.28	4.57	4.36	4.23
27.	Confer with department heads and administrative staff to determine the effectiveness of education and training.	4.21	4.32	4.12	4.39	4.54	4.36	4.15
28.	Control and schedule the use of education and training facilities and equipment (slide projectors, manikins, films, etc.).	4.17	4.58	4.19	4.61	4.71[F]	4.46	4.05
29.	Document expenditures incurred for educational offerings or programs.	4.16	4.63	4.27	4.17	4.50	4.32	4.07
30.	Provide, coordinate, develop, and maintain records for continuing education programs (i.e., state, national, U. S. Navy CEARP, or CME programs).	4.16	4.16	4.00	4.39	4.50	4.36	4.11

ECs was 3.97 (SD = 1.26, n = 28). Scale reliability, as estimated by Cronbach's alpha, was .81.

Interpretation of the meaning of the EC role conflict score should be undertaken with caution. Even though EC role conflict appears to be "moderate" (since the mean falls in the middle of a 7-point range), it would be a mistake to make any conclusions in any absolute sense. This is because attitude scales provide only relative scores. For example, the obtained value in this study may in fact be quite high when compared with scores from ECs or similar groups in other organizations. To our knowledge, however, no data exist on this variable from any appropriate comparison group. The value of the measure in this study is that it provides a baseline measure for future comparisons and correlational analyses.

An attempt was made to determine whether EC role conflict scores were related to the number of times their role perceptions differed from their supervisors' perceptions of what the EC job should be. To the extent that differences in EC/supervisor perceptions constitute incongruous role expectations, role theory predicts a positive linear relationship (Rizzo, et al., 1970). To assess for this relationship, the number of task items for which there existed a difference in responses between the EC and his/her supervisor were counted. Then, a Pearson correlation was calculated between the number of discrepant task items and the role conflict score for each EC. The resultant correlation was significant, $r(18) = .53$, $p < .01$.

a. Be a participating member of the Credentials and Quality Assurance Committee. (Item ranked #60).

b. Establish policies for educational funding (including TAD funding). (Item ranked #66.)

c. Serve as a participating member of committees to establish hospital budget priorities. (Item ranked #68.)

TABLE 7

MEANS, SDs, AND t VALUES OF SIGNIFICANT PAIRED COMPARISONS BETWEEN ECs AND THEIR IMMEDIATE SUPERVISORS (n=19)

Item Rank	EC $\bar{x}$ (SD)	Supervisor $\bar{x}$ (SD)	t	Prob t (2-Tail)
5	4.79(.42)	4.42(.69)	2.35	.031
6	4.95(.23)	4.74(.45)	2.19	.042
9	4.74(.42)	4.50(.44)	2.14	.046
43	4.32(.67)	3.74(.73)	2.80	.012
46	4.48(.69)	3.84(1.11)	2.25	.037
51	4.53(.70)	4.05(.85)	2.28	.035
60	3.95(.97)	2.68(1.06)	3.46	.003
66	3.63(.96)	2.58(1.12)	3.20	.005
68	3.84(.90)	2.95(.97)	3.03	.007

Note: Item rank is based upon responses of total study sample. Task statements can be located by referring to Table 4 and matching item ranks.

Role Conflict Scale

In the present study the original Rizzo, et al. (1970) role conflict scale was modified from a 7-point to a 5-point response range to keep response formatting uniform throughout the questionnaire. However, to make the results of this study compatible with other studies employing the original 7-point metric, a linear transformation was performed on ECs' scores. Reporting transformed scores, the mean role conflict score for

administration. A perusal of Table 6 reveals complete EC/supervisor pair representation for large teaching hospitals and nearly complete representation (80 percent) for family practice hospitals. Medium size and small hospitals, on the other hand, show 55 percent and 45 percent representation, respectively. Thus, results of the paired comparisons should be interpreted with this reduced sample in mind.

TABLE 6

RESPONSE DISTRIBUTION OF EC/SUPERVISOR PAIRS BY HOSPITAL SIZE

Hospital Size	Pairs Present	Pairs Missing	Total
Large Teaching	4 (100%)	0 (---)	4
Family Practice	4 (80%)	1 (20%)	5
Medium Size	6 (55%)	5 (45%)	11
Small	5 (45%)	6 (55%)	11
Total	19 (61%)	12 (39%)	31

Table 7 shows the means, standard deviations, and t values of those task items for which there was a significant difference within EC/supervisor pairs. An examination of Table 7 reveals that for the first six task items listed, there is general agreement within pairs that the EC should perform the task. The differences between ECs and their supervisors seem to be mainly ones of degree or priority. The last three task items listed, however, show a fairly strong divergence in the direction of favorability. Supervisors tend to feel that the following three tasks should not be performed by ECs:

Results of the multiple comparisons revealed only a negligible effect on task perceptions as a function of respondent hospital size. Only five task items showed at least one significant between group difference. However, none of these five involved any appreciable divergence in terms of direction of respondent favorability toward a task. (See Appendix C.)

This analysis was repeated after separating the random sample of nurses from the rest of the study sample. This was done in an effort to determine whether the influence of the random sample of nurses was "swamping" the responses of the other job groups and masking differences between hospitals at higher hierarchical levels. Results of the comparisons between hospitals employing only the random sample of nurses revealed differences for only four tasks. The same analyses using the rest of the study sample (i.e., excluding the random sample of nurses) identified only two tasks with significant between hospital differences.For both groups the differences were limited to ones of rank or priority rather than direction of task favorability.

Paired Comparisons Between ECs and Their Immediate Supervisors. The foregoing analyses examined perceptions of the role of the EC from the perspective of various subgroups and billets of interest. However, as mentioned earlier, supervisors are the most salient role-senders to position incumbents. Therefore, the present analysis was conducted to compare the perceptions of ECs and their immediate supervisors.

The distribution of supervisors in the present analysis is: one executive officer, four directors of nursing services, and 14 directors of

An examination of Table 5 shows, in general, a fairly high degree of agreement between nurse subgroups regarding tasks that ECs should perform. Of the 18 task items showing at least one significant between group difference, 16 or nearly 90 percent were basically differences in rank or priority. The remaining two task item comparisons reveal rather strong differences in respondent perceptions of whether the EC should or should not perform the stated task. (See task items numbered 68 and 74 in Table 5.) With regard to item 68, patient care coordinators differ sharply from ECs, and indicate they feel the EC should not participate on committees to establish hospital budget priorities. Comparisons on item 74 reveal that directors of nursing services perceive it as "mildly" appropriate for the EC to conduct tours of the facility for outside groups, whereas the EC and other nurse educators feel fairly strongly that it is not part of the EC's role.

Multiple Comparisons Between Hospital Size Categories. Similar to the previous analyses, multiple comparisons were conducted among the four hospital size categories using the Scheffe method. The means for each category of hospital were computed giving each respondent equal weight. Because of this default weighting scheme, it should be noted that there are differing proportions of randomly sampled nurse corps officers represented in the mean values for the various categories of hospitals. These proportions, from largest to smallest hospital category are: 88, 75, 66, and 54 percent, respectively. (See Table 5B for more demographic detail.)

TABLE 5 (continued)

		A	B	C	D	E	F	G
67.	Provide and supervise health care provider on-the-job training for procedures and tasks in the clinical setting.	3.03	2.82	2.95	3.17	3.34	3.39	3.10
68.	Serve as a participating member of committees to establish hospital budget priorities.	3.21	3.86 CE	2.47	3.50	3.11	3.02	3.21
69.	Serve as a participating committee member to solve specific hospital problems.	3.50	3.21	2.47	3.28	2.98	2.99	3.17
70.	Prepare written reports about current health care trends and issues for the administrative and/or other departments.	2.96	2.61	2.68	3.06	2.89	3.17	2.90
71.	Serve as a liaison to Navy recruiters.	2.96	2.93	2.95	3.00	3.17	2.92	2.84
72.	Plan task analysis studies to help specify the skills and knowledge required for various health care provider jobs in the hospital.	2.70	2.70	2.71	2.86	3.05	3.23	2.86
73.	Assist the administrative staff in planning decision-making meetings.	2.53	2.75	2.63	3.06	2.61	2.80	2.81
74.	Conduct tours of the facility for outside groups.	3.35 BD	2.36	2.53	1.94	2.77	2.61	2.65
75.	Conduct new product testing.	2.64	1.89 F	2.58	2.33	2.55	2.83	2.34
76.	Counsel hospital personnel regarding work-related problems.	1.75 F	2.25	1.53 F	2.28	1.97 F	2.51	2.33
77.	If a nurse, "routinely" fill in and relieve supervisors and ward personnel.	2.18	1.17	2.05	1.67	1.95	2.51	1.92
78.	Mediate differences among other unit managers and among other hospital staff.	1.89	2.17	1.66	1.81	2.12	2.24	1.99

TABLE 5 (continued)

		A	B	C	D	E	F	G
49.	Develop proposals and conduct research to evaluate the impact of education department progams on quality of patient care.	4.16	3.98	4.00	3.94	3.72	3.83	3.79
50.	Recommend appropriate training and education to resolve performance problems in the hospital.	3.75	3.82	3.84	3.33	3.88	3.87	3.81
51.	Attend the meetings of professional organizations (e.g., ASHET, ANA, ACHA, AMA).	3.79	4.36 EF	3.74	4.00	3.59	3.71	3.88
52.	Analyze the job descriptions of various hospital staff to determine education and training needs.	3.18 F	3.82	3.52	3.50	3.88	4.00	3.65
53.	Coordinate schedules and the use of facilities with faculty members if the facility is used for clinical experience by affiliated professional schools and programs.	4.21	3.64	3.52	3.61	3.81	3.62	3.73
54.	Assess the need for and plan patient care programs.	4.04	3.62	4.00	3.42	3.45	3.61	3.98
55.	Serve as a participating committee member of committees to review various hospital policies.	3.50	3.79	3.68	4.06	3.67	3.84	3.83
56.	Evaluate changes in performance resulting from participation in training and education programs.	3.76	3.82	3.74	3.72	3.73	3.65	3.73
57.	Provide limited reference materials to all personnel.	3.57	3.75	3.89	3.89	3.48	3.46	3.5[illegible]
58.	Plan community medical education programs in conjunction with other health care agencies or facilities.	3.79	3.64	3.95	3.28	3.63	3.48	3.33
59.	Serve as a fleet education liaison contact point to ships in the local area.	4.32 EFG	3.75	3.63	4.22	3.44	3.39	3.44
60.	Be a participating member of the Credentials and Quality Assurance Committees.	3.21	3.75	3.37	4.17	3.73	3.60	3.31
61.	Conduct or serve as a mediator in departmental decision-making meetings.	3.86 EFG	4.00	3.37	4.22	3.41	3.36	3.42
62.	Assess and analyze employee learning needs using multiple sources of written information, personal observations, incident/accident reports, quality assurance reviews, and anecdotal notes.	3.27	3.29	3.47	3.39	3.37	3.46	3.32
63.	Participate in community projects.	3.86	3.71	3.00	3.56	3.23	3.27	3.29
64.	Arrange for hospital employees to attend education and training activities outside the hospital.	2.96	2.96	2.79	2.67	3.05	3.57	3.33
65.	Conduct programs for hospital volunteers.	3.68	3.07	3.63	2.83	3.23	3.18	3.25
66.	Establish policies for educational funding (including TAD funding).	2.93	3.39	3.10	3.28	3.13	3.49	3.19

TABLE 5 (continued)

		A	B	C	D	E	F	G
31.	Plan, develop and coordinate training and education department programs with other agencies (i.e., educational institutions, government agencies.	4.54	4.32	4.21	4.22	4.20	4.00	4.27
32.	Requisition special equipment and furnishings for education and training.	4.57 EF	4.50 F	4.10	4.44	4.03	3.99	4.19
33.	Plan and document certification, recertification, and licensure of staff personnel.	4.27	4.29	4.13	4.22	4.25	4.14	4.22
34.	Give talks or speeches to various groups regarding hospital education and training programs.	4.50	4.21	3.95	4.00	3.86	4.03	4.12
35.	Be a participating member of all hospital education committees.	4.03	4.50	4.42	4.06	4.00	4.01	4.02
36.	Provide educational assistance to outlying branch clinics.	4.54 E	4.14	4.00	4.17	4.16	3.86	4.13
37.	Evaluate the cost effectiveness of education and training programs.	4.64 EF	4.36	4.10	4.44	3.94	3.87	4.12
38.	Represent the hospital at meetings with other educational agencies or organizations.	4.42	4.29	3.89	4.50	4.16	3.94	3.98
39.	Plan the arrangement or management of education and training department spaces, furniture, and equipment to meet changing work requirements.	4.51 EF	4.52 EF	4.16	4.56 F	3.98	3.75	4.11
40.	Conduct carefully planned interviews with department heads, administrative staff, and other personnel in order to determine possible education and training activities.	4.21	4.14	3.84	3.94	3.95	4.03	4.10
41.	Develop or provide assistance in developing training aids, (i.e., art work and transparencies).	4.36	4.25	4.05	3.83	4.00	4.00	4.00
42.	Analyze current hospital problems or interests in order to determine the need for new education and training programs or changes in existing programs.	4.10	3.93	4.00	4.22	3.95	4.04	4.13
43.	Work with outside experts in developing education and training programs.	4.18	4.29	4.16	4.06	3.80	3.94	4.12
44.	Document military advancement and training requirements and conduct military advancement training.	4.32	4.21	4.10	4.06	3.67	3.76	4.15
45.	Plan and conduct programs for personnel on all 3 shifts.	4.07	3.39	3.79	4.06	3.92	4.07	3.98
46.	Counsel hospital personnel regarding education and training related to their career goals.	4.21	4.14	3.31	3.78	3.69	4.04	3.73
47.	Analyze existing organizational policies and procedures to determine if any mandate education and training.	3.93	4.18	3.74	4.11	3.61	3.91	3.98
48.	Control the schedules and assignments of personnel when they are in an orientation/indoctrination program.	3.93	4.39	3.84	4.28	3.72	3.87	3.94

TABLE 5 (continued)

		A	B	C	D	E	F	G
14.	Develop training and education activities and/or services in response to requests from department heads.	4.57	4.29	4.42	4.11	4.34	4.29	4.38
15.	Plan staff training and education programs.	4.39	4.61	4.32	4.28	4.36	4.30	4.40
16.	Inform management and administration of new developments in education and training.	4.71	4.50	4.32	4.33	4.33	4.23	4.34
17.	Maintain records documenting staff participation in educational programs.	4.67[F]	4.52	4.44	4.39	4.32	4.12	4.40
18.	Record/report training and education expenditures to the administrative department.	4.75	4.50	4.42	4.39	4.31	4.12	4.40
19.	Serve as resource and provide opportunities to share info with personnel regarding continuing education activities and programs.	4.55	4.46	4.24	4.39	4.33	4.30	4.33
20.	Assist others in planning and developing instructional programs and/or materials.	4.39	4.46	4.32	4.50	4.27	4.19	4.40
21.	Develop criteria and design evaluation instruments for education and training materials and/or programs.	4.57[F]	4.46	4.29	4.58	4.30	4.09	4.41
22.	Initiate or respond to correspondence regarding training and education department procedures, activities, and services.	4.64[F]	4.71[EF]	4.32	4.44	4.17	4.06[G]	4.40
23.	Review changes in hospital policies and procedures to determine their effect on the education department.	4.54	4.64	4.37	4.83	4.23	4.15	4.23
24.	Talk informally with department heads and administative staff in order to determine possible education and training activities.	4.25	4.57	4.11	4.44	4.28	4.09	4.44
25.	Prepare written reports about the education and training of personnel for the administrative and/or other departments.	4.54	4.39	4.53	4.33	4.16	4.04	4.33
26.	Operate a learning laboratory for CPR training and IV practice and certification.	4.57	4.36	4.21	4.17	4.25	4.20	4.31
27.	Confer with department heads and administrative staff to determine the effectiveness of education and training.	4.54	4.36	4.11	4.11	4.19	4.11	4.29
28.	Control and schedule the use of education and training facilities and equipment (slide projectors, manikins, films, etc.).	4.71[EF]	4.46	4.26	4.22	4.06	3.89[G]	4.37
29.	Document expenditures incurred for educational offerings or programs.	4.50	4.32	4.21	4.33	4.09	4.02	4.06
30.	Provide, coordinate, develop, and maintain records for continuing education programs (i.e., state, national, U. S. Navy CEARP, or CME programs).	4.50	4.36	4.21	4.28	4.23	4.03	4.12

TABLE 5

EC TASK INVENTORY ITEM MEANS AND MULTIPLE COMPARISONS BY SELECTED NURSE SUBGROUPS

		A Directors of Nursing Services	B Educational Coordinators	C Patient Care Coordinators	D Nurse Educators	E Charge Nurses	F Staff Nurses	G Other Nurses
1.	Supervise the activities of the training and education department.	4.93	5.00	4.79	4.94	4.77	4.69	4.85
2.	Prepare written plans of educational objectives and priorities.	4.86	4.75	4.84	4.89	4.66	4.58	4.63
3.	Make available a variety of education and training resources for the use of hospital staff.	4.82	4.86	4.74	4.56	4.63	4.65	4.71
4.	Develop and maintain a system for recording data about the education and training of personnel.	4.68	4.89	4.79	4.61	4.67	4.27	4.71
5.	Read books, magazines, journals, and catalogues to keep current on education and training.	4.61	4.79	4.58	4.61	4.42	4.49	4.60
6.	Select education and training material and equipment.	4.71	4.93 EF	4.53	4.67	4.40	4.40	4.52
7.	Prepare and distribute notices, bulletins, newsletters, and other educational information to the hospital staff.	4.86	4.71	4.47	4.44	4.27	4.42	4.48
8.	Prepare and manage the education and training budget.	4.88 EF	4.79 F	4.76 F	4.58	4.34	4.22 G	4.45
9.	Upgrade his/her own personal knowledge and skills in the educational field.	4.68	4.70	4.50	4.75	4.40	4.38	4.41
10.	Plan and evaluate the effectiveness of orientation/indoctrination programs for new personnel.	4.57	4.39	4.37	4.39	4.41	4.27	4.46
11.	Evaluate education and training literature and related instructional materials.	4.68	4.64	4.42	4.44	4.31	4.35	4.44
12.	Maintain in-house educational course content materials.	4.71 E	4.50	4.37	4.39	4.47	4.28	4.37
13.	Prepare and distribute questionnaires to obtain staff input about educational needs and offerings.	4.57	4.39	4.37	4.39	4.41	4.27	4.46

NOTE 1. Task inventory items are rank ordered on the basis of total sample item means.

NOTE 2. Letters within columns designate a significant difference ($P < .05$, Scheffe' method) between the item mean in the column and the noted comparison group. Item standard deviations for each subgroup are available on request.

Inspection of the total sample means in Table 4 reveals a marked negative skew in responses across the universe of inventory items. That is, if one uses the midpoint of the response range as the gross dividing score, there are 70 task items with a total sample mean above 3.00 and eight tasks with a total sample mean less than this value. This means that the majority of the tasks itemized in the task inventory are perceived as being appropriately the responsibility of the EC.

With regard to the results of the job group comparisons, 28 task items revealed at least one significant between group difference. In only five instances, however, was there divergence that crossed over the scale midpoint. (See task items ranked 55, 60, 61, 66 and 68 in Table 4.) In these instances differences were not simply in degree, but in direction of favorability toward the task statements. The content of these five items is remarkably similar and pertains to EC participation in decision-making meetings regarding hospital policies, quality assurance, and dollars. There is a clear trend in job group response differences. On the whole, both ECs and the random sample of nurses perceive such activity as appropriate to the EC position. Commanding officers, executive officers, and directors of administration do not view such activity as part of the functions of the EC position.

Multiple Comparisons Between Nurse Subgroups. Means and multiple comparisons between nurse billets are shown in Table 5. The response of each nurse in a given billet category was given equal weight in computing category means for each task statement. Again, multiple comparisons were conducted using the Scheffe procedure.

TABLE 4 (continued)

		A	B	C	D	E	F
67.	Provide and supervise health care provider on-the-job training for procedures and tasks in the clinical setting.	3.18	2.89	2.69	3.72	3.03	2.82	3.29
68.	Serve as a participating member of committees to establish hospital budget priorities.	3.08	2.95	2.61[E]	2.72[E]	3.21	3.86[F]	3.06
69.	Serve as a participating committee member to solve specific hospital problems.	3.04	2.84	3.12	2.89	3.50	3.21	3.00
70.	Prepare written reports about current health care trends and issues for the administrative and/or other departments.	3.04	3.26	3.35	3.28	2.96	2.61	3.02
71.	Serve as a liaison to Navy recruiters.	2.95	2.68	2.50[D]	2.50[D]	2.96	2.93	2.97
72.	Plan task analysis studies to help specify the skills and knowledge required for various health care provider jobs in the hospital.	2.95	2.58	2.60	2.44	2.70	2.70	3.08
73.	Assist the administrative staff in planning decision-making meetings.	2.71	2.74	2.19	2.72	2.53	2.75	2.77
74.	Conduct tours of the facility for outside groups.	2.66	2.84	2.19	2.44	3.35[EF]	2.36	2.60
75.	Conduct new product testing.	2.48	1.84[F]	1.65[DF]	2.06	2.64	1.89[F]	2.64
76.	Counsel hospital personnel regarding work-related problems.	2.21	1.79	2.19	1.94	1.75	2.25	2.30
77.	If a nurse, "routinely" fill in and relieve supervisors and ward personnel.	2.17	2.00	2.27	2.11	2.18	1.71	2.22
78.	Mediate differences among other unit managers and among other hospital staff.	2.04	1.68	1.71	1.67	1.89	2.17	2.11

TABLE 4 (continued)

		A	B	C	D	E	F
49. Develop proposals and conduct research to evaluate the impact of education department progams on quality of patient care.	3.83	3.53	3.83	3.67	4.16	3.98	3.82
50. Recommend appropriate training and education to resolve performance problems in the hospital.	3.80	3.37	3.88	3.78	3.75	3.82	3.83
51. Attend the meetings of professional organizations (e.g., ASHET, ANA, ACHA, AMA).	3.78	3.58	3.62	4.06	3.79	4.36[F]	3.73
52. Analyze the job descriptions of various hospital staff to determine education and training needs.	3.76	3.58	3.42	3.50	3.18[F]	3.82	3.86
53. Coordinate schedules and the use of facilities with faculty members if the facility is used for clinical experience by affiliated professional schools and programs.	3.70	3.63	3.62	3.72	4.21	3.64	3.68
54. Assess the need for and plan patient care programs.	3.70	3.76	3.77	4.00	4.04	3.62	4.37
55. Serve as a participating committee member of committees to review various hospital policies.	3.68	3.21	3.15	2.89[F]	3.50	3.79	3.80
56. Evaluate changes in performance resulting from participation in training and education programs.	3.66	3.58	3.38	3.83	3.76	3.82	3.69
57. Provide limited reference materials to all personnel.	3.57	3.89	3.77	3.94	3.57	3.75	4.49
58. Plan community medical education programs in conjunction with other health care agencies or facilities.	3.54	4.00	3.81	3.17	3.79	3.64	3.48
59. Serve as a fleet education liaison contact point to ships in the local area.	3.51	3.37	3.31[D]	3.28	4.32[F]	3.75	3.45
60. Be a participating member of the Credentials and Quality Assurance Committees.	3.40	2.52[EF]	2.27[DEF]	2.39[EF]	3.21	3.75	3.60
61. Conduct or serve as a mediator in departmental decision-making meetings.	3.40	2.74[E]	2.69[DE]	3.06	3.86	4.00	3.43
62. Assess and analyze employee learning needs using multiple sources of written information, personal observations, incident/accident reports, quality assurance reviews, and anecdotal notes.	3.37	3.16	3.15	3.47	3.27	3.29	3.41
63. Participate in community projects.	3.35	3.47	3.27	3.39	3.86[F]	3.71	3.26
64. Arrange for hospital employees to attend education and training activities outside the hospital.	3.27	3.00	3.31	3.50	2.96	2.96	3.32
65. Conduct programs for hospital volunteers.	3.25	3.26	3.46	3.22	3.68	3.07	3.21
66. Establish policies for educational funding (including TAD funding).	3.19	2.68	2.35[F]	2.56	2.93	3.39	3.33

TABLE 4 (continued)

			A	B	C	D	E	F
31.	Plan, develop and coordinate training and education department programs with other agencies (i.e., educational institutions, government agencies.	4.16	4.10	4.08	4.28	4.54	4.32	4.11
32.	Requisition special equipment and furnishings for education and training.	4.15	4.32	4.08	4.44	4.57[F]	4.50[F]	4.06
33.	Plan and document certification, recertification, and licensure of staff personnel.	4.12	3.34[CDEN]	3.69[EF]	4.22	4.27	4.29	4.18
34.	Give talks or speeches to various groups regarding hospital education and training programs.	4.10	4.26	4.23	4.50	4.50	4.21	4.00
35.	Be a participating member of all hospital education committees.	4.09	4.00	4.12	4.50	4.03	4.50	4.04
36.	Provide educational assistance to outlying branch clinics.	4.08	4.37	4.12	4.50	4.54[F]	4.14	3.99
37.	Evaluate the cost effectiveness of education and training programs.	4.07	4.11	4.19	4.17	4.64[F]	4.36	3.97
38.	Represent the hospital at meetings with other educational agencies or organizations.	4.07	4.00	4.00	4.22[F]	4.42[F]	4.29[F]	4.02
39.	Plan the arrangement or management of education and training department spaces, furniture, and equipment to meet changing work requirements.	4.05	4.24	4.08	4.50	4.51	4.52	3.93
40.	Conduct carefully planned interviews with department heads, administrative staff, and other personnel in order to determine possible education and training activities.	4.04	4.05	4.12	4.11	4.21	4.14	4.01
41.	Develop or provide assistance in developing training aids, (i.e., art work and transparencies).	4.04	4.05	3.85	4.39	4.36	4.25	3.99
42.	Analyze current hospital problems or interests in order to determine the need for new education and training programs or changes in existing programs.	4.01	4.00	3.65	4.00	4.10	3.93	4.05
43.	Work with outside experts in developing education and training programs.	3.99	4.11	3.96	3.83	4.18	4.29	3.96
44.	Document military advancement and training requirements and conduct military advancement training.	3.96	4.21	3.96	4.61	4.32	4.21	3.85
45.	Plan and conduct programs for personnel on all 3 shifts.	3.95	4.00	3.73	3.94	4.07	3.39	4.01
46.	Counsel hospital personnel regarding education and training related to their career goals.	3.90	3.58	4.12	3.83	4.21	4.14	3.86
47.	Analyze existing organizational policies and procedures to determine if any mandate education and training.	3.90	4.00	3.81	4.17	3.93	4.18	3.86
48.	Control the schedules and assignments of personnel when they are in an orientation/indoctrination program.	3.89	3.74	3.31[E]	4.22	3.93	4.39	3.[illegible]

Given that role conflict proved to be highly correlated with the number of EC/supervisor task item differences, it was considered useful to identify the specific task items that contributed most substantially to this relationship. Once identified, these task items could than be singled out as a focus for ameliorative efforts. Pearson correlations were computed between EC role conflict scores and the absolute value of the difference between the EC's and his/her supervisor's response to each of the 78 task items. Using 2-tail tests of significance, five task items proved to be significantly correlated with role conflict scores. Table 8 identifies the content, correlation, and significance levels of these task items.

TABLE 8

CORRELATION, SIGNIFICANCE LEVEL, AND CONTENT OF TASK ITEMS RELATED TO EC PERCEPTIONS OF ROLE CONFLICT (N = 19)

Item[a] Rank	Item Content	R	Prob. 2-Tail
11	Evaluate education and training literature and related instructional materials.	.55	.02
22	Initiate or respond to correspondence regarding training and education department procedures, activities, and services.	.56	.01
32	Requisition special equipment and furnishings for education and training.	.47	.04
47	Analyze existing organizational policies and procedures to determine if any mandate education and training.	.48	.04
57	Provide limited reference materials to all personnel	.55	.02
61	Conduct or serve as a mediator in departmental decision-making meetings.	.46	.05

[a]Item rank is based on total sample means and 78 task items.

After examining the content of the task items presented in Table 8, there did not appear to be any underlying practical relationship among these particular items.

Attitudes Toward Education and Training

The index measuring attitudes toward education in general was the mean of the eight questionnaire items on this topic (Cronbach's alpha = .87). Similarly, the index measuring perceptions of the current status of education and training at respondents' present hospitals was the mean of the ten items assessing this area (Cronbach's alpha = .84). Scores on negatively worded items were reversed on both scales. Therefore, the greater the score, the more favorable the attitude measured.

Attitudes toward education and training in general appeared to be relatively high across all subgroups analyzed. There were no differences revealed on this variable based on hospital size.

Overall, respondents' perceptions of the status of education and training at their present hospitals appeared to be less favorable than their views of the value of education and training in general. Nurses, as a job group, indicated significantly less favorable perceptions of education and training at their present hospitals than did the other job groups surveyed. Comparisons of total sample responses on this measure by hospital size indicated large teaching hospitals were perceived as

significantly less supportive of education than small and medium size hospitals. Secondary analyses of this measure revealed that these differences were in fact due to the responses of the random sample of nurses. Comparisons by hospital size, excluding the random sample of nurses, were non-significant. (Tables 9, 10, and 11 present means, standard deviations, and multiple comparisons by job groups, nurse subgroups, and hospital size categories on attitudes toward education. The letters within table columns designate a significant difference ($p < .05$, Scheffe method) between the item mean in the column and the noted comparison group.)

TABLE 9

ATTITUDES TOWARD EDUCATION AND TRAINING--MEANS, SDs, AND MULTIPLE COMPARISONS BY SAMPLE JOB GROUPS

		Total Sample	Command Officer n=19	Exec. Officer n=26	Dir. Admin. n=18	Dir. Nurs. n=28	Educ. Coord. n=29	NC Sample n=309
			A	B	C	D	E	F
ATEG	$\bar{x}$	4.59	4.70	4.51	4.57	4.75	4.88[F]	4.56
	(SD)	(.47)	(.40)	(.44)	(.43)	(.41)	(.25)	(.49)
ATEC	$\bar{x}$	3.75	4.24[F]	4.13[F]	4.16[F]	4.15[F]	4.02[F]	3.60
	(SD)	(.59)	(.29)	(.49)	(.44)	(.61)	(.53)	(.56)

Key: ATEG = Attitude toward education and training in general (5-point scale).
ATEC = Attitude toward education and training at respondents' current hospitals (5-point scale).

TABLE 10

ATTITUDES TOWARD EDUCATION AND TRAINING--MEANS, SDs, AND MULTIPLE COMPARISONS BY NURSE_SUBGROUP

		Dir. Nurs. n=28	Educ. Coord. n=29	Pt Care Coord. n=19	Nurs. Educ. n=20	Charge Nurse n=64	Staff Nurse n=156	Other Nurse n=47
		A	B	C	D	E	F	G
ATEG	$\bar{x}$	4.75	4.88[F]	4.41	4.84	4.51	4.54	4.64
	(SD)	(.41)	(.25)	(.51)	(.27)	(.48)	(.52)	(.41)
ATEC	$\bar{x}$	4.15[EFG]	4.02[F]	3.59	3.71	3.61	3.58	3.63
	(SD)	(.61)	(.53)	(.65)	(.53)	(.65)	(.51)	(.58)

Key: ATEG = Attitude toward education and training in general (5-point scale).
ATEC = Attitude toward education and training at respondents' current hospitals (5-point scale).

TABLE 11

ATTITUDES TOWARD EDUCATION AND TRAINING--MEANS, SDs, AND MULTIPLE COMPARISONS BY HOSPITAL SIZE

		Teaching Hospitals n=137	Family Practice n=76	Medium Size n=134	Small Hospitals n=82
		A	B	C	D
ATEG	$\bar{x}$(SD)	4.58(.44)	4.68(.39)	4.53(.56)	4.66(.41)
ATEC	$\bar{x}$(SD)	3.57(.55)[CD]	3.76(.61)	3.90(.56)	3.81(.64)

Key: ATEG = Attitude toward education and training in general (5-point scale).
ATEC = Attitude toward education and training at respondents' current hospitals (5-point scale).

Organization of the Education Department

Current Organization. ECs were asked four questions, paraphrased below, to ascertain the current organizational situation of education departments:

1. Is the EC job full or part-time?
2. To whom do you directly report in the chain of command?
3. How is nursing education organized?
4. At your present facility which personnel do the EC's responsibilities encompass?

Tables 1D through 4D in Appendix D display the distribution of EC responses to the available alternatives on these questions broken down by hospital size.

Results of question one above revealed that 90 percent of the ECs responding indicated that the EC position is a full-time activity. Surprisingly, one of the three ECs reporting that the position was a collateral duty was stationed at a large teaching hospital--the remaining two ECs indicating this were from small hospitals.

Responses to question two showed that 22 out of 29 or 76 percent of the responding ECs currently report directly to the director of administration. Small hospitals show the most variation on this item. Of 10 responding ECs at small hospitals, two indicated they report to the executive officer, two report to the director of nursing service, and six report to the director of administration.

With regard to question three, which assessed the organizational position of nursing education at each hospital, 80 percent of the responding ECs reported that it is part of a hospital-wide department of education. This approximate percentage is relatively consistent for each of the four size categories of hospitals.

Findings for question four indicate that, with the exception of large teaching hospitals, about 80 percent of the responding EC's indicated their job responsibilities encompass all classes of personnel. One large teaching hospital included all personnel as part of the EC's responsibility, two large teaching hospitals excluded physicians and one large teaching hospital indicated responsibility for only nurses and corpsmen.

Desired Organization. Tables 5D through 7D show the distribution of responses by job group, nurse billet, and hospital size, respectively, to the question of how should nursing education be organized. Results overall indicated general agreement (70 percent) that nursing education should be part of a hospital-wide education department. However, closer inspection revealed some variation between job groups. Commanding officers, executive officers, directors of administration, and ECs responded better than 83 percent in favor of hospital-wide organization. Directors of nursing services and the Nurse Corps sample indicated distinctly less agreement, with 68 and 65 percent respectively, advocating hospital-wide organization. Differences between nurse subgroups and between hospital size categories were minimal.

With regard to the personnel the EC's responsibilities should encompass, 70 percent of the total sample indicated the EC should be responsible for all classes of hospital personnel. The Nurse Corps random sample, however, was less supportive of this view than the other job groups surveyed. Sixty-eight percent of the Nurse Corps random sample indicated that EC responsibility should encompass all personnel in contrast to a mean of 87 percent for the other job groups. The remaining 32 percent of the nurse sample was approximately evenly split between proposing the exclusion of physicians (16 percent) and including only nurses and corpsmen (16 percent). A further examination of results on this item revealed that respondents from large teaching hospitals were somewhat less supportive of EC responsibilities encompassing all personnel than were respondents from smaller hospitals (59 percent versus 79 percent, respectively). (Tables 8D through 10D display the breakdown of responses to this item by job group, nurse billet, and hospital size.)

Additional analyses of this variable by hospital size, excluding the random sample of nurses revealed an even larger divergance of opinions among managers. In large teaching hospitals 59 percent of the respondents indicated that EC responsibilities should encompass all personnel; 35 percent indicated that EC responsibilities should encompass only non-physician personnel. The corresponding average figures from small hospitals (family practice, medium size, and small) were 91 percent and seven percent, respectively.

Table 11D shows the distribution of EC perceptions of who they felt they should be reporting to in the chain of command. Responses to this

item differ markedly from current structure. Sixteen out of 26 or 62 percent of the ECs responding felt they should report directly to the commanding officer or the executive officer. Thirty percent of the responding ECs indicated the administrative officer was the appropriate senior and eight percent indicated the director of nursing services as appropriate.

Educational Preparation of ECs

Incumbent EC Educational Background. Twenty-eight out of 29 responding ECs received baccalaureate degrees in nursing; twenty-one or 72 percent of the ECs responding continued their education to obtain a masters degree as a terminal degree. The predominant masters degree major, as shown in Table 12, is the field of education (52 percent) followed by nursing (43 percent).

TABLE 12

INCUMBENT EC EDUCATIONAL BACKGROUND (n = 29)

Degree	Major	Number With Specified Major and Degree	Number as Terminal Degree
Diploma	Nursing	1	--
Baccalaureate	Nursing	27	
	Health Care Mgmt	1	
	Missing	1	8
Masters	Nursing	7	
	Education	11	
	Community Health	1	
	Administration	1	
	Missing	1	21

Instructor Training. Approximately 86 percent of the respondents indicated that the EC should attend instructor training school. Two notable deviations from this high percentage among job groups were directors of administration (72 percent) and EC incumbents (69 percent). There were no appreciable differences on this item between the various nurse subgroups or between hospitals. (Tables 1E through 3E in Appendix E provide further detail.)

Minimum Level of EC Education. Overall, results showed that the majority of respondents (55 percent) felt the masters degree should be the minimum level of EC education. Forty-three percent of the total sample indicated the bachelors degree would be sufficient educational preparation.

An examination of results on this item by major job groups, however, revealed variation within the hospital hierarchy. Commanding officers who responded tended to view the bachelors degree as adequate (79 percent). Executive officers and administrative officers were split on this question. Directors of nursing service and ECs appeared to support a masters degree requirement (combined percentage of 70 percent). The Nurse Corps random sample showed little subgroup variation on this question and responded 56 percent in favor of masters preparation.

An additional finding was the tendency for hospital size to qualify the respondents' recommended level of EC education. The larger the

hospital the more likely the respondents were to indicate a preference for masters degree preparation. Figure 1 shows a graph of this relationship. (See Tables 4E through 6E in Appendix E for the distribution of responses by sample subgroups.)

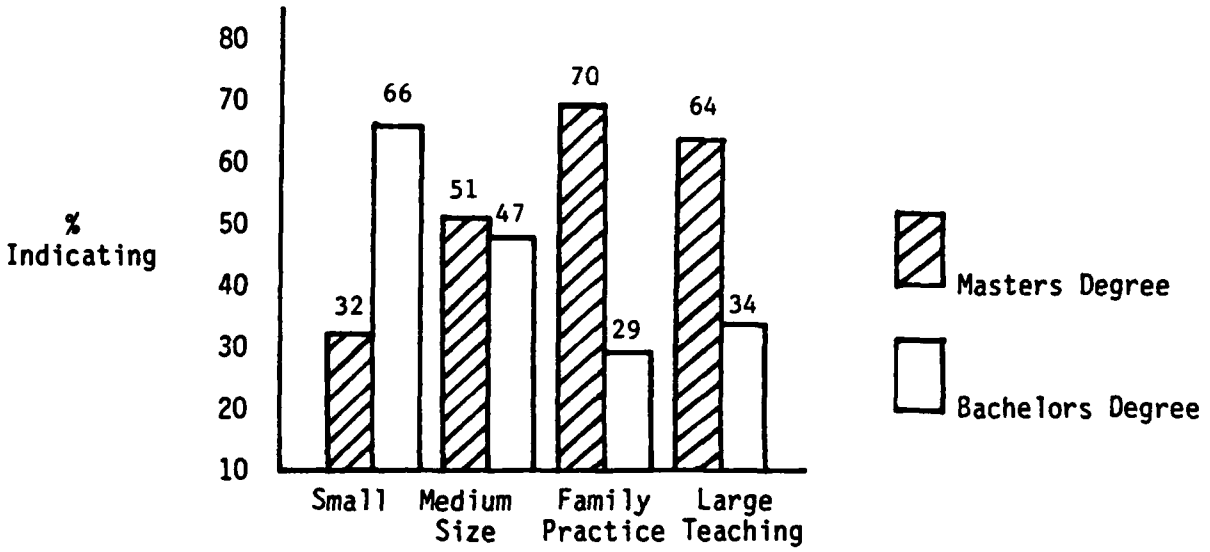

Figure 1. Graph of respondents' recommended level of EC educational preparation by hospital size.

Focus of EC Graduate Preparation. Fifty-four percent of the total sample selected "administration of education" as the most appropriate focus for EC graduate training. "Education" was selected by 37 percent of the total sample. "Administration" and miscellaneous other concentrations accounted for a negligible seven percent of the responses. This pattern of percentages holds consistently across all job groups, nurse billets, and hospital size categories. (See Tables 7E through 9E in Appendix E for the distribution of responses on this item by sample subgroups.)

EC Career Concerns

In response to the question of whether they would like to remain in their present EC billet, 100 percent of the 27 responding ECs answered affirmatively. With regard to the question of whether the EC billet is frustrating and leads to burnout, 37 percent of the responding ECs indicated "not at all" or "slightly", 41 percent indicated "somewhat", and 22 percent responded "quite" or "extremely". There did not appear to be any relationship to responses on this item and hospital size. Additional analyses revealed no significant effects on responses to this item as a function of rank, educational attainment, or time in position. (See Appendix F, Table 1F, for a breakdown of responses on this item by hospital size.)

The final question pertaining to EC career concerns was designed to assess the perceptions of the total sample regarding the extent to which the EC billet is career enhancing. Results showed that 64 percent of the total sample felt the billet to be "quite" or "extremely" career enhancing. Twenty-seven percent perceived the billet as "somewhat" career enhancing, and 12 percent felt the position to be only "slightly" or "not at all" career enhancing. There were no significant differences in this pattern of results for the total sample as a function of job group, nurse billet, or hospital size. (Tables 2F through 4F in Appendix F show the distribution of responses for the foregoing groups on this item.)

A separate inspection of EC responses to the above question reveals two notable findings. First, although ECs who responded are in general

agreement that the EC billet is at least somewhat career enhancing, ECs from large teaching hospitals unanimously viewed the billet as "extremely" career enhancing. This compares to only one out of 18 ECs with the same view of the position at smaller hospitals. The second finding that should be noted is that eight out of 29 ECs did not respond to the item. This number of EC non-respondents is considerably greater than for other questionnaire items. Table 13 shows that 50 percent of the missing ECs were from "small" hospitals. One can only guess what the perceptions of non-respondents are.

TABLE 13

BREAKDOWN OF EC RESPONSES TO EXTENT EC BILLET IS CAREER ENHANCING BY HOSPITAL SIZE

		Response				
		"Somewhat"	"Quite"	"Extremely"	Missing	Total
Hospital Size	Large Teaching	0	0	3	1	4(13.8%)
	Family Practice	2	2	0	1	5(17.2%)
	Medium Size	2	5	1	2	10(34.5%)
	Small	3	3	0	4	10(34.5%)
	Total	7(24.1%)	10(34.5%)	4(13.8%)	8(27.6%)	29(100%)

Discussion and Recommendations

The Navy EC has been faced with not only an increasing volume but a myriad of demands to coordinate and conduct specialized training specific to both JCAH and military requirements. Both the literature and Navy educational experts have delineated significant problems constraining effective and efficient education and training within hospitals. These problems provided the impetus for the present study.

The primary objective of the present study was to identify the tasks, duties, and responsibilities of the EC position by considering the perceptions of incumbents and relevant role-senders. Additional objectives were to:

1. Identify the extent of role conflict experienced by EC incumbents and assess its relationship with differences in role perceptions between the EC and his/her supervisor.
2. Identify attitudes toward education and training in general, and at each hospital sampled, as a means of estimating management support and the perceived efficacy of hospital education and training, respectively.
3. Identify the current education department structure at each naval hospital and assess what various constituents believe the organizational structure <u>should</u> be.
4. Identify what EC incumbents and constituents think the appropriate educational preparation for ECs should be.
5. Assess the extent of various EC career concerns, such as burnout, career potential, and general desirability of the position.

There was substantial agreement among the sample subgroups regarding the relative importance of various tasks the EC should perform. This was

evidenced by the relatively small number of significant differences in perceptions between subgroups. Although it is problematic to identify the exact importance of specific tasks based upon the absolute values of response means, respondents perceived the EC as appropriately performing or being responsible for the performance of a large number of tasks. Results of the survey identified 70 specific tasks with a total sample mean above the response scale midpoint. Although differences in perceptions of appropriate EC tasks would not have been unexpected based upon hospital size, this proved not to be the case. The level of appropriate Education Department staffing, however, may be a key difference between hospitals of varying sizes. This variable, however, was not assessed in the present study.

Responses to five items in the task inventory showed clear differences between subgroups of the hospital hierarchy. These items pertained to EC participation in decision-making meetings regarding hospital policies, quality assurance, and dollars. Commanding officers, executive officers, and directors of administration, in contrast to ECs and the random sample of nurses, did not view such activity as part of the functions of the EC position. This finding has substantial implications for the organizational location of the education function within the hospital structure. As noted in the overview section of this report, a key structural consideration for the effective functioning of the education department is the "fit" or consonance of centralization of training and education responsibilities and centralization of decision-making. Results of this survey point to a poor fit currently between these two variables.

92. conduct programs for hospital volunteers.	1	2	3	4	5
93. provide, coordinate, develop, and maintain records for continuing education programs (i.e., state, national, U.S. Navy CEARP, or CME programs).	1	2	3	4	5
94. conduct new product testing.	1	2	3	4	5
95. operate a learning laboratory for CPR training and IV practice and certification.	1	2	3	4	5
96. develop or provide assistance in developing training aids, (i.e., art work and transparencies).	1	2	3	4	5

PART II

DEMOGRAPHIC AND ATTITUDE SECTION

Directions: Please be sure to answer each question according to the directions accompanying that question.

1. What is your present rank? (Circle the letter beside the correct answer.)

   a. O7
   b. O6
   c. O5
   d. O4
   e. O3
   f. O2
   g. O1

4. What is your current position? (Circle the letter beside the correct answer.)

   a. Commanding Officer
   b. Executive Officer
   c. Administrative Officer
   d. Director of Nursing Service
   e. Education Coordinator
   f. Patient Care Coordinator
   g. Nursing Instructor
   h. Charge Nurse (on a full-time, designated b sis)
   i. Staff Nurse
   j. Other: (please identify) _____

5. To what corps do you belong? (Circle the letter beside the correct answer.)

   a. MC
   b. DC
   c. MSC
   d. NC

6. How long have you been in your current position? (Fill in the blank with the number of months.)

   _____ months

7. Identify the highest degree you have received. (Circle the letter beside the correct answer).

   a. Nursing Diploma
   b. Baccalaureate Degree
   c. Masters Degree
   d. Doctoral Degree
   e. Post-Doctoral Degree

72. evaluate the effectiveness of orientation programs.	1	2	3	4	5
73. document military advancement and training requirements and conduct military advancement training.	1	2	3	4	5
75. analyse current hospital problems or interests in order to determine the need for new education and training programs or changes in existing programs.	1	2	3	4	5
76. confer with department heads and administrative staff to determine the effectiveness of education and training.	1	2	3	4	5
77. control the schedules and assignments of personnel when they are in an orientation/indoctrination program.	1	2	3	4	5
78. provide limited reference materials to all personnel.	1	2	3	4	5
79. observe the work of personnel in other hospital departments in order to help identify problems amenable to training.	1	2	3	4	5
80. assist the administrative staff in planning decision-making meetings.	1	2	3	4	5
81. serve as a liaison to Navy recruiters.	1	2	3	4	5
84. serve as a fleet education liaison contact point to ships in the local area.	1	2	3	4	5
85. serve as a resource to ward and clinic personnel who are planning individual education programs.	1	2	3	4	5
86. provide opportunities for sharing information gained from continuing education activities.	1	2	3	4	5
87. assess and analyze employee learning needs using multiple sources of written information, personal observations, incident/accident reports, quality assurance reviews, and anecdotal notes.	1	2	3	4	5
88. plan and conduct programs for personnel on all 3 shifts.	1	2	3	4	5
89. provide educational assistance to outlying branch clinics.	1	2	3	4	5
90. coordinate schedules and the use of facilities with faculty members if the facility is used for clinical experience by affiliated professional schools and programs.	1	2	3	4	5
91. provide and supervise health care provider on-the-job training for procedures and tasks in the clinical setting.	1	2	3	4	5

53. conduct tours of the facility for outside groups.	1	2	3	4	5
54. plan the arrangement or management of education and training department space, furniture, and equipment to meet changing work requirements.	1	2	3	4	5
55. assess the need for patient education programs.	1	2	3	4	5
56. conduct carefully planned interviews with department heads, administrative staff, and other personnel in order to determine possible education and training activities.	1	2	3	4	5
57. work with outside experts in developing education and training programs.	1	2	3	4	5
58. mediate differences among hospital staff.	1	2	3	4	5
59. plan staff training and education programs.	1	2	3	4	5
60. evaluate changes in performance resulting from participation in training and education programs.	1	2	3	4	5
61. maintain in-house educational course content materials.	1	2	3	4	5
62. participate in community projects.	1	2	3	4	5
63. requisition special equipment and furnishings for education and training.	1	2	3	4	5
64. plan task analysis studies in order to best specify the skills and knowledge required for various positions.	1	2	3	4	5
65. help specify the competencies or criteria for all health care provider jobs in the hospital.	1	2	3	4	5
66. plan certification, recertification, and licensure programs.	1	2	3	4	5
67. develop and maintain record keeping systems for attendance at education and training programs.	1	2	3	4	5
68. document the certification, recertification, and licensure of staff personnel.	1	2	3	4	5
69. control and schedule the use of education and training facilities and equipment (slide projectors, manikins, films, etc.).	1	2	3	4	5
70. prepare and distribute questionnaires to obtain staff input about educational needs and offerings.	1	2	3	4	5
71. plan an orientation/indoctrination program for all new personnel.	1	2	3	4	5

32. if a nurse, "routinely" fill in and relieve supervisors and ward personnel.	1	2	3	4	5
33. plan patient education programs.	1	2	3	4	5
34. design evaluation instruments for education and training materials or programs.	1	2	3	4	5
35. document expenditures incurred for educational offerings or programs.	1	2	3	4	5
36. be a participating member of the Credentials and Quality Assurance Committees.	1	2	3	4	5
37. initiate or respond to correspondence regarding training and education department procedures, activities, and services.	1	2	3	4	5
38. arrange for hospital employees to attend education and training activities outside the hospital.	1	2	3	4	5
39. analyse existing organisational policies and procedures to determine if any mandate education and training.	1	2	3	4	5
40. assist others in planning and developing instructional programs and/or materials.	1	2	3	4	5
41. upgrade his/her own personal knowledge and skills in the educational field.	1	2	3	4	5
42. counsel hospital personnel regarding work-related problems.	1	2	3	4	5
43. recommend appropriate training and education to resolve performance problems in the hospital.	1	2	3	4	5
44. evaluate the cost effectiveness of education and training programs.	1	2	3	4	5
45. document staff participation in educational programs.	1	2	3	4	5
46. inform management and administration of new developments in education and training.	1	2	3	4	5
47. request appropriate alterations of the physical spaces and layout for education and training.	1	2	3	4	5
48. talk informally with department heads and administrative staff in order to determine possible education and training activities.	1	2	3	4	5
50. conduct research to evaluate the impact of education department programs on the quality of patient care.	1	2	3	4	5
51. establish policies for educational funding (including TAD funding).	1	2	3	4	5
52. maintain records documenting staff participation in educational programs.	1	2	3	4	5

14. review changes in hospital policies and procedures to determine their effect on the education department.	1	2	3	4	5
15. establish and manage the budget assigned to education and training.	1	2	3	4	5
16. prepare written reports about the education and training of personnel for the administrative and/or other departments.	1	2	3	4	5
17. give talks or speeches to various groups regarding hospital education and training programs.	1	2	3	4	5
18. evaluate education and training literature and related instructional materials.	1	2	3	4	5
19. be a participating member of all hospital education committees.	1	2	3	4	5
20. plan, develop and coordinate training and education department programs with other agencies (i.e., educational institutions, government agencies).	1	2	3	4	5
21. attend the meetings of professional organizations (e.g., ASHET, AHA, ACHA, AMA).	1	2	3	4	5
22. counsel hospital personnel regarding education and training related to their career goals.	1	2	3	4	5
24. plan community medical education programs in conjunction with other health care agencies or facilities.	1	2	3	4	5
25. develop criteria against which training and education department materials and/or programs can be evaluated.	1	2	3	4	5
26. prepare written reports about current health care trends and issues for the administrative and/or other departments.	1	2	3	4	5
27. represent the hospital at meetings with other educational agencies or organizations.	1	2	3	4	5
28. make available a variety of education and training resources for the use of hospital staff.	1	2	3	4	5
29. analyze the job descriptions of various hospital staff to determine education and training needs.	1	2	3	4	5
30. develop training and education activities and/or services in response to requests from department heads.	1	2	3	4	5
31. attend education and training activities outside the hospital for his/her own personal development.	1	2	3	4	5

PART I

THE ROLE OF THE EDUCATION COORDINATOR

Directions: Using the scale below, please circle the number next to each question which best indicates the extent to which you agree or disagree with any of the statements. It will be very helpful to us if you make sure that you respond to all of the statements. You may notice that some of the statements seem quite similar. These are not intended to trick you, but are included to increase the reliability of the questionnaire.

1=Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
THE EDUCATION COORDINATOR SHOULD:					
1. serve as a participating committee member of committees to review various hospital policies.	1	2	3	4	5
2. prepare written plans of educational objectives and priorities.	1	2	3	4	5
3. supervise the activities of the training and education department.	1	2	3	4	5
4. prepare and recommend a budget covering training and education operations.	1	2	3	4	5
5. record/report training and education expenditures to the administrative department.	1	2	3	4	5
6. prepare and distribute notices, bulletins, newsletters, and other educational information to the hospital staff.	1	2	3	4	5
7. select education and training material and equipment.	1	2	3	4	5
8. develop and maintain a system for recording data about the education and training of personnel.	1	2	3	4	5
9. conduct or serve as a mediator in departmental decision-making meetings.	1	2	3	4	5
10. read books, magazines, journals, and catalogues to keep current on education and training.	1	2	3	4	5
11. mediate differences among managers of other hospital organizational units.	1	2	3	4	5
12. serve as a participating member of committees to establish hospital budget priorities.	1	2	3	4	5
13. develop education related research proposals.	1	2	3	4	5

APPENDIX A

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2. The Command Education Department should be responsible for the education and training of all hospital personnel, military and civilian, with the only exception being graduate medical education. In this way significant economies of scale can be realized through the centralization of instructors, materials, and equipment. Moreover, commonalities between programs can be exploited.

3. A panel of content experts should be tasked with developing a standard EC position description for use at all Navy hospitals based upon the findings of this study. This would clarify role expectations and serve as a basis for both career planning and developing qualification standards. Additionally, a systematic analysis of staffing requirements should be initiated. The primary distinction between EC positions across hospitals should not be in terms of departmental responsibilities, but in terms of staff size to meet the needs of each facility.

larger hospitals, the EC will presumably have a larger staff and delegate more activities to subordinates. In smaller hospitals the EC may be less of a manager and more of a "doer". Also, in larger hospitals, the graduate degree may enhance the credibility of the EC among other health care professionals. However, this issue requires further study. Qualifications can now be systematically determined given that EC tasks have been identified.

Appropriate educational preparation is closely related with EC career concerns and career pathways. Partially dependent upon the ultimate organizational location of the Command Education Department, experience or training in management and budget planning and accountability appear to be desirable prerequisites for the position. Given that the billet is designated 2xxx, the various corps should identify viable career pathways to this position. Currently, the majority of respondents, including ECs, tend to view the EC position as a career enhancing billet. Role-conflict and burnout do not appear to be significant problems at this time.

Based on the foregoing findings, it is recommended that:

1. The EC or Head, Command Education Department, should function at the directorate level in a staff position, report to the executive officer, and be a special advisor to the commanding officer. This change to the current organization manual for hospitals would enhance the credibility of the EC position, provide authority commensurate with position responsibility, facilitate central management of resources, and increase accessibility and responsiveness to all Directorates and their staff personnel.

the director of administration, as currently indicated in the organization manual. This is not surprising from an EC's viewpoint, since in effect it would be an elevation in status. Beyond this personal gain, however, a number of benefits to the effective performance of hospital education functions would accrue. The recommended change in reporting relationships would facilitate communication, coordination, and credibility with hospital departments for which the EC has education and training responsibility. Furthermore, direct access to the executive officer would enable the EC to compete and negotiate for needed resources on an equal footing with other Directorates. This would be a step toward resolving the historical issue of inadequate resources in terms of staff, money, and equipment.

In general, attitudes toward the efficacy of education and training within hospitals are high among most of the personnel sampled. Nurses as a group, however, perceived management support of education and training as slightly lower than the other groups surveyed. One outcome of elevating the EC position to a directorate that is relevent to this perception would be greater visibility and support for education and training at the highest levels of hospital management.

With regard to identifying the appropriate educational preparation for ECs, this study represents only an initial step. The majority of respondents did feel, however, that a masters degree in education or administration of education is the preferred educational preparation for ECs. Hospital size is a factor which should be taken into account. In

The present consolidation of educational responsibilities in Navy hospitals into a Command Education Department is not accompanied with the authority to participate in fundamental decision issues. This may be due in part to traditional management views of the role of the EC. However, the primary factor is probably the current organizational positioning or level of the Education Department.

The survey revealed considerable variability between hospitals in terms of current educational department structure and EC reporting relationships. Compliance with the latest organization manual for hospitals (NAVMEDCOMINST 5450.1 CH-1) appears to be about 75 percent.

The majority of respondents indicated disagreement with the existing organizational manual with regard to two major areas of EC responsibility. First, most respondents in all sample subgroups indicated the EC should be responsible for the education and training of <u>all</u> personnel, including physicians. Of course, this view in favor of including responsibility for physician training is assumed to exclude graduate medical education. The organization manual currently excludes all physicians from EC purview.

The second area of disagreement with the hospital organization manual was the organizational level of the EC position. This item was assessed based on the responses of ECs only. The majority of ECs felt they should report to the executive officer or the commanding officer, as opposed to

CAREER CONCERNS

16. Would you like to remain in or go back to an education coordinator billet? (Circle the letter beside the correct answer.)

    Y. Yes N. No

17. To what extent do you feel that occupying an education coordinator billet is frustrating and leads to "burnout"? (Please circle the number which best reflects your response to the question.)

    1. not at all frustrating
    2. slightly frustrating
    3. somewhat frustrating
    4. quite frustrating
    5. extremely frustrating
    6. don't know

20. To what extent do you feel that filling an education coordinator billet is career enhancing? (Please circle the number which best reflects your response to the question.)

    1. not at all career enhancing
    2. slightly career enhancing
    3. somewhat career enhancing
    4. quite career enhancing
    5. extremely career enhancing
    6. don't know

ORGANIZATIONAL STRUCTURE

18. To whom do you (or did you) directly report to in the chain of command? (Circle the letter beside the correct answer.)

    a. CO c. Director, Nursing Service
    b. XO d. Other (give position title)_____

19. To whom do you (or did you) think you <u>should be</u> reporting directly to in the chain of command? (Circle the letter beside the correct answer.)

    a. CO c. Director, Nursing Service
    b. XO d. Other (give position title)_____

22. How would you best describe the education coordinator assignment at your present command? (Choose only one response and circle the letter beside that response.)

    a. It is a full-time assignment.
    b. It is a collateral duty.

26. How is nursing education organized at your present facility? (Circle the letter beside your selection.)

    a. It is a department within nursing service.
    b. It is part of a hospital-wide education department and is not strictly a part of the nursing service.

27. What are your personal feelings about how nursing education <u>should be</u> organized at your present facility? (Circle the letter beside your selection.)

a. It should be a service within the nursing department.

b. It should be part of a hospital-wide education department and should not be strictly a part of the nursing department.

28. At your present facility, which of the below listed personnel do the education coordinator's responsibilities encompass? (Circle the letter next to your answer.)

a. All categories of personnel.

b. All categories of non-physician personnel.

c. Nurses and hospital corpsmen.

29. Given the ideal situation, which of the below listed personnel do you feel the education coordinator's responsibilities <u>should</u> encompass? (Circle the letter next to your selection.)

a. All categories of personnel.

b. All categories of non-physician personnel.

c. Nurses and hospital corpsmen.

EDUCATIONAL PREPARATION

23. Do you feel that an education coordinator should be required to attend Instructor Training School? (Circle the letter next to your choice.)

Y. Yes N. No

24. What do you feel is the <u>minimum level</u> of formal education that should be required of an education coordinator? (Select only one response and circle the letter next to that response.)

a. Bachelors Degree b. Masters Degree

c. Doctoral Degree (MD and/or Ph.D.)

25. Which of the following do you feel should be the focus of the education coordinator's graduate preparation? (Select only one response and circle the letter next to that response.)

a. Education

b. Administration

c. Administration of Education

d. Other (please identify the specialty on the line below):

PART III

ATTITUDES TOWARD EDUCATION

Directions: The following statements pertain to education and training functions is general within the hospital setting. Please circle the number next to each statement which best indicates the extent to which you agree or disagree with the statement, according to the scale below.

1=Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1. Education and training can have a positive impact on the quality of health care delivery.	1	2	3	4	5
2. Education and training is really just a necessary evil.	1	2	3	4	5
3. Education and training just gets in the way of providing health care services.	1	2	3	4	5
4. Education and training is a waste of hospital dollars.	1	2	3	4	5
5. Education and training plays an important role in the accomplishment of the hospital's mission.	1	2	3	4	5
6. Education and training is an appropriate strategy towards maintaining and improving health care services.	1	2	3	4	5
7. Education and training merits the full support and cooperation of all departments.	1	2	3	4	5
8. Education and training can seldom, if ever, benefit patients.	1	2	3	4	5

PART III

ATTITUDES TOWARD EDUCATION

Directions: Please respond to the following statements from the perspective of the current status of the education and training system in your present hospital. Please circle the number next to the statement which best indicates the extent to which you agree or disagree with each particular statement according to the scale below.

1=Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1. Education and training staff have more power than they deserve.	1	2	3	4	5
2. The administration just pays lip service to education and training functions.	1	2	3	4	5
3. People in education and training are respected as valued resources.	1	2	3	4	5
4. Education and training is viewed by management as equally important to quality health care as are other departments.	1	2	3	4	5
5. Education and training in this naval medical facility is just "window dressing."	1	2	3	4	5
6. People in education and training want more resources (human, physical, budgetary) than they should have.	1	2	3	4	5
7. Education and training personnel are seen as knowledgeable professionals.	1	2	3	4	5
8. Education and training staff have more influence than they merit.	1	2	3	4	5
9. People in education and training are typically the sort who don't fit in anywhere else.	1	2	3	4	5
10. Education and training staff facilitate team efforts in the hospital.	1	2	3	4	5

ROLE CONFLICT

Directions: Please respond to each item by circling the number that best indicates the degree to which the condition exists on the job for you now.

1=Very False 2=Somewhat False 3=Neither True nor False 4=Somewhat True 5=Very True	Very False	Somewhat False	Neither True Nor False	Somewhat True	Very True
5. I have to do things that should be done differently.	1	2	3	4	5
11. I receive an assignment without the manpower to complete it.	1	2	3	4	5
13. I have to buck a rule or policy in order to carry out an assignment.	1	2	3	4	5
18. I work with two or more groups who operate quite differently.	1	2	3	4	5
20. I receive incompatible requests from two or more people.	1	2	3	4	5
22. I do things that are apt to be accepted by one person and not by others.	1	2	3	4	5
24. I receive an assignment without adequate resources and materials to execute it.	1	2	3	4	5
26. I work on unnecessary things.	1	2	3	4	5

APPENDIX B

APPENDIX B

TABLE 1B

BREAKDOWN OF SAMPLE BY JOB GROUP AND RANK

FREQUENCY PERCENT ROW PCT COL PCT	CAPT	CDR	LCDR	LT	LTJG	ENS	TOTAL
COMMAND OFFICER	17	2	0	0	0	0	19
	3.96	0.47	0.00	0.00	0.00	0.00	4.43
	89.47	10.53	0.00	0.00	0.00	0.00	
	28.81	2.50	0.00	0.00	0.00	0.00	
EXEC OFFICER	11	15	0	0	0	0	26
	2.56	3.50	0.00	0.00	0.00	0.00	6.06
	42.31	57.69	0.00	0.00	0.00	0.00	
	18.64	18.75	0.00	0.00	0.00	0.00	
DIR ADMIN SERV	0	11	6	1	0	0	18
	0.00	2.56	1.40	0.23	0.00	0.00	4.20
	0.00	61.11	33.33	5.56	0.00	0.00	
	0.00	13.75	5.36	0.88	0.00	0.00	
DIR NURS SERV	22	6	0	0	0	0	28
	5.13	1.40	0.00	0.00	0.00	0.00	6.53
	78.57	21.43	0.00	0.00	0.00	0.00	
	37.29	7.50	0.00	0.00	0.00	0.00	
EDUC COORD	3	9	12	4	0	1	29
	0.70	2.10	2.80	0.93	0.00	0.23	6.76
	10.34	31.03	41.38	13.79	0.00	3.45	
	5.08	11.25	10.71	3.54	0.00	2.38	
NUR. CORPS SAMPLE	6	37	94	108	23	41	309
	1.40	8.62	21.91	25.17	5.36	9.56	72.03
	1.94	11.97	30.42	34.95	7.44	13.27	
	10.17	46.25	83.93	95.58	100.00	97.62	
TOTAL	59	80	112	113	23	42	429
	13.75	18.65	26.11	26.34	5.36	9.79	100.00

TABLE 2B

BREAKDOWN OF SAMPLE BY JOB GROUP AND CORPS MEMBERSHIP

FREQUENCY PERCENT ROW PCT COL PCT	MC	DC	MSC	NC	TOTAL
COMMAND OFFICER	14 3.26 73.68 58.33	1 0.23 5.26 100.00	3 0.70 15.79 7.89	1 0.23 5.26 0.27	19 4.43
EXEC OFFICER	9 2.10 34.62 37.50	0 0.00 0.00 0.00	17 3.96 65.38 44.74	0 0.00 0.00 0.00	26 6.06
DIR ADMIN SERV	1 0.23 5.56 4.17	0 0.00 0.00 0.00	17 3.96 94.44 44.74	0 0.00 0.00 0.00	18 4.20
DIR NURS SERV	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	28 6.53 100.00 7.65	28 6.53
EDUC COURD	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.23 3.45 2.63	28 6.53 96.55 7.65	29 6.76
NUR. CORPS SAMPLE	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	309 72.03 100.00 84.43	309 72.03
TOTAL	24 5.59	1 0.23	38 8.86	366 85.31	429 100.00

TABLE 3B

BREAKDOWN OF SAMPLE BY JOB GROUP AND EDUCATIONAL ATTAINMENT

FREQUENCY / PERCENT / ROW PCT / COL PCT	NURSE DIPLOMA	BACHELOR	MASTERS	DOCTORATE	POST DOC	MISSING	TOTAL
COMMAND OFFICER	0	0	3	14	1	1	19
	0.00	0.00	0.70	3.26	0.23	0.23	4.43
	0.00	0.00	15.79	73.68	5.26	5.26	
	0.00	0.00	2.54	60.87	33.33	25.00	
EXEC OFFICER	0	1	16	7	2	0	26
	0.00	0.23	3.73	1.63	0.47	0.00	6.06
	0.00	3.85	61.54	26.92	7.69	0.00	
	0.00	0.42	13.56	30.43	66.67	0.00	
DIR ADMIN SERV	0	6	10	1	0	1	18
	0.00	1.40	2.33	0.23	0.00	0.23	4.20
	0.00	33.33	55.56	5.56	0.00	5.56	
	0.00	2.54	8.47	4.35	0.00	25.00	
DIR NURS SERV	0	7	21	0	0	0	28
	0.00	1.63	4.90	0.00	0.00	0.00	6.53
	0.00	25.00	75.00	0.00	0.00	0.00	
	0.00	2.97	17.80	0.00	0.00	0.00	
EDUC COORD	0	8	21	0	0	0	29
	0.00	1.86	4.90	0.00	0.00	0.00	6.76
	0.00	27.59	72.41	0.00	0.00	0.00	
	0.00	3.39	17.80	0.00	0.00	0.00	
NUR CORPS SAMPLE	45	214	47	1	0	2	309
	10.49	49.88	10.96	0.23	0.00	0.47	72.03
	14.56	69.26	15.21	0.32	0.00	0.65	
	100.00	90.68	39.83	4.35	0.00	50.00	
TOTAL	45	236	118	23	3	4	429
	10.49	55.01	27.51	5.36	0.70	0.93	100.00

TABLE 4B

BREAKDOWN OF SAMPLE BY JOB GROUP AND MONTHS IN PRESENT JOB

FREQUENCY / PERCENT / ROW PCT / COL PCT	MISSING	1-12 MOS	13-24 MOS	25-36 MOS	>36 MOS	TOTAL
COMMAND OFFICER	0	9	10	0	0	19
	.	2.12	2.36	0.00	0.00	4.48
	.	47.37	52.63	0.00	0.00	
	.	4.09	7.41	0.00	0.00	
EXEC OFFICER	1	13	11	1	0	25
	.	3.07	2.59	0.24	0.00	5.90
	.	52.00	44.00	4.00	0.00	
	.	5.91	8.15	2.27	0.00	
DIR ADMIN SERV	1	12	5	0	0	17
	.	2.83	1.18	0.00	0.00	4.01
	.	70.59	29.41	0.00	0.00	
	.	5.45	3.70	0.00	0.00	
DIR NURS SERV	0	12	12	2	2	28
	.	2.83	2.83	0.47	0.47	6.60
	.	42.86	42.86	7.14	7.14	
	.	5.45	8.89	4.55	8.00	
EDUC COORD	0	16	10	3	0	29
	.	3.77	2.36	0.71	0.00	6.84
	.	55.17	34.48	10.34	0.00	
	.	7.27	7.41	6.82	0.00	
NUR CORPS SAMPLE	3	158	87	38	23	306
	.	37.26	20.52	8.96	5.42	72.17
	.	51.63	28.43	12.42	7.52	
	.	71.82	64.44	86.36	92.00	
TOTAL	.	220	135	44	25	424
	.	51.89	31.84	10.38	5.90	100.00

TABLE 5B

BREAKDOWN OF SAMPLE BY JOB GROUP AND HOSPITAL TEACHING STATUS AND SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	LARGE TEACHING	FAMILY PRACTICE	MEDIUM SIZE	SMALL	TOTAL
COMMAND OFFICER	2	2	8	7	19
	0.47	0.47	1.86	1.63	4.43
	10.53	10.53	42.11	36.84	
	1.46	2.63	5.97	8.54	
EXEC OFFICER	3	4	12	7	26
	0.70	0.93	2.80	1.63	6.06
	11.54	15.38	46.15	26.92	
	2.19	5.26	8.96	8.54	
DIR ADMIN SERV	4	3	6	5	18
	0.93	0.70	1.40	1.17	4.20
	22.22	16.67	33.33	27.78	
	2.92	3.95	4.48	6.10	
DIR NURS SERV	4	5	10	9	28
	0.93	1.17	2.33	2.10	6.53
	14.29	17.86	35.71	32.14	
	2.92	6.58	7.46	10.98	
EDUC COORD	4	5	10	10	29
	0.93	1.17	2.33	2.33	6.76
	13.79	17.24	34.48	34.48	
	2.92	6.58	7.46	12.20	
NUR CORPS SAMPLE	120	57	88	44	309
	27.97	13.29	20.51	10.26	72.03
	38.83	18.45	28.48	14.24	
	87.59	75.00	65.67	53.66	
TOTAL	137	76	134	82	429
	31.93	17.72	31.24	19.11	100.00

TABLE 6B

BREAKDOWN OF SAMPLE BY HOSPITAL TEACHING STATUS AND SIZE AND RANK

FREQUENCY PERCENT ROW PCT COL PCT	CAPT	CDR	LCDR	LT	LTJG	ENS	TOTAL
LARGE TEACHING	13 3.03 9.49 22.03	16 3.73 11.68 20.00	28 6.53 20.44 25.00	38 8.86 27.74 33.63	17 3.96 12.41 73.91	25 5.83 18.25 59.52	137 31.93
FAMILY PRACTICE	14 3.26 18.42 23.73	18 4.20 23.68 22.50	24 5.59 31.58 21.43	15 3.50 19.74 13.27	2 0.47 2.63 8.70	3 0.70 3.95 7.14	76 17.72
MEDIUM SIZE	22 5.13 16.42 37.29	26 6.06 19.40 32.50	33 7.69 24.63 29.46	38 8.86 28.36 33.63	4 0.93 2.99 17.39	11 2.56 8.21 26.19	134 31.24
SMALL	10 2.33 12.20 16.95	20 4.66 24.39 25.00	27 6.29 32.93 24.11	22 5.13 26.83 19.47	0 0.00 0.00 0.00	3 0.70 3.66 7.14	82 19.11
TOTAL	59 13.75	80 18.65	112 26.11	113 26.34	23 5.36	42 9.79	429 100.00

TABLE 7B

BREAKDOWN OF SAMPLE BY HOSPITAL TEACHING STATUS AND SIZE AND CORPS MEMBERSHIP

FREQUENCY / PERCENT / ROW PCT / COL PCT	MC	DC	MSC	NC	TOTAL
LARGE TEACHING	5	0	4	128	137
	1.17	0.00	0.93	29.84	31.93
	3.65	0.00	2.92	93.43	
	20.83	0.00	10.53	34.97	
FAMILY PRACTICE	3	0	6	67	76
	0.70	0.00	1.40	15.62	17.72
	3.95	0.00	7.89	88.16	
	12.50	0.00	15.79	18.31	
MEDIUM SIZE	10	1	15	108	134
	2.33	0.23	3.50	25.17	31.24
	7.46	0.75	11.19	80.60	
	41.67	100.00	39.47	29.51	
SMALL	6	0	13	63	82
	1.40	0.00	3.03	14.69	19.11
	7.32	0.00	15.85	76.83	
	25.00	0.00	34.21	17.21	
TOTAL	24	1	38	366	429
	5.59	0.23	8.86	85.31	100.00

TABLE 8B

BREAKDOWN OF SAMPLE BY HOSPITAL TEACHING STATUS AND SIZE AND EDUCATIONAL ATTAINMENT

EQUENCY ERCENT)W PCT)L PCT	NURSE DI PLOMA	BACHELOR	MASTERS	DOCTORATE	POST DOC	MISSING	TOTAL
RGE TEACHING	22	80	29	4	1	1	137
	5.13	18.65	6.76	0.93	0.23	0.23	31.93
	16.06	58.39	21.17	2.92	0.73	0.73	
	48.89	33.90	24.58	17.39	33.33	25.00	
MILY PRACTICE	7	42	24	3	0	0	76
	1.63	9.79	5.59	0.70	0.00	0.00	17.72
	9.21	55.26	31.58	3.95	0.00	0.00	
	15.56	17.80	20.34	13.04	0.00	0.00	
DIUM SIZE	8	74	40	9	1	2	134
	1.86	17.25	9.32	2.10	0.23	0.47	31.24
	5.97	55.22	29.85	6.72	0.75	1.49	
	17.78	31.36	33.90	39.13	33.33	50.00	
ALL	8	40	25	7	1	1	82
	1.86	9.32	5.83	1.63	0.23	0.23	19.11
	9.76	48.78	30.49	8.54	1.22	1.22	
	17.78	16.95	21.19	30.43	33.33	25.00	
TAL	45	236	118	23	3	4	429
	10.49	55.01	27.51	5.36	0.70	0.93	100.00

AD-A157 551 PERCEPTIONS OF THE EDUCATIONAL COORDINATOR'S ROLE IN THE NAVY MEDICAL DEPARTMENT(U) NAVAL SCHOOL OF HEALTH SCIENCES BETHESDA MD T P STEELE ET AL. FEB 85 RR-3-85 2/2

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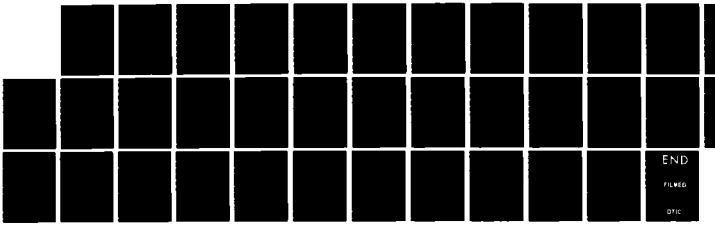

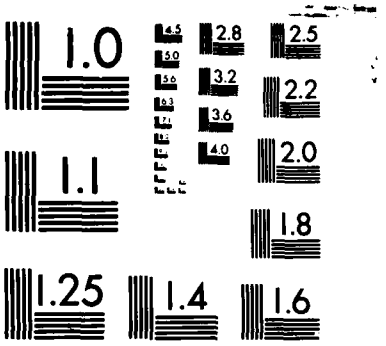

TABLE 9B

BREAKDOWN OF NURSE CORPS SAMPLE BY BILLET AND RANK

FREQUENCY / PERCENT / ROW PCT / COL PCT	CAPT	CDR	LCDR	LT	LTJG	ENS	TOTAL
DIR NURS SERV	22	6	0	0	0	0	28
	6.01	1.64	0.00	0.00	0.00	0.00	7.65
	78.57	21.43	0.00	0.00	0.00	0.00	
	70.97	11.54	0.00	0.00	0.00	0.00	
EDUC COORD	3	9	12	4	0	1	29
	0.82	2.46	3.28	1.09	0.00	0.27	7.92
	10.34	31.03	41.38	13.79	0.00	3.45	
	9.68	17.31	11.32	3.57	0.00	2.38	
PT CARE COORD	0	13	6	0	0	0	19
	0.00	3.55	1.64	0.00	0.00	0.00	5.19
	0.00	68.42	31.58	0.00	0.00	0.00	
	0.00	25.00	5.66	0.00	0.00	0.00	
EDUC STAFF	0	3	11	6	0	0	20
	0.00	0.82	3.01	1.64	0.00	0.00	5.46
	0.00	15.00	55.00	30.00	0.00	0.00	
	0.00	5.77	10.38	5.36	0.00	0.00	
CHARGE NURSE	0	3	45	15	0	1	64
	0.00	0.82	12.30	4.10	0.00	0.27	17.49
	0.00	4.69	70.31	23.44	0.00	1.56	
	0.00	5.77	42.45	13.39	0.00	2.38	
STAFF NURSE	0	1	14	80	23	40	158
	0.00	0.27	3.83	21.86	6.28	10.93	43.17
	0.00	0.63	8.86	50.63	14.56	25.32	
	0.00	1.92	13.21	71.43	100.00	95.24	
OTHER NURSE	6	17	18	7	0	0	48
	1.64	4.64	4.92	1.91	0.00	0.00	13.11
	12.50	35.42	37.50	14.58	0.00	0.00	
	19.35	32.69	16.98	6.25	0.00	0.00	
TOTAL	31	52	106	112	23	42	366
	8.47	14.21	28.96	30.60	6.28	11.48	100.00

TABLE 10B

BREAKDOWN OF NURSE CORPS SAMPLE BY BILLET AND EDUCATIONAL ATTAINMENT

FREQUENCY / PERCENT / RUW PCT / COL PCT	NURSE DI PLOMA	BACHELOR	MASTERS	DOCTORATE	MISSING	TOTAL
DIR NURS SERV	0	7	21	0	0	28
	0.00	1.91	5.74	0.00	0.00	7.65
	0.00	25.00	75.00	0.00	0.00	
	0.00	3.06	23.60	0.00	0.00	
EDUC COORD	0	8	21	0	0	29
	0.00	2.19	5.74	0.00	0.00	7.92
	0.00	27.59	72.41	0.00	0.00	
	0.00	3.49	23.60	0.00	0.00	
PT CARE COORD	3	10	6	0	0	19
	0.82	2.73	1.64	0.00	0.00	5.19
	15.79	52.63	31.58	0.00	0.00	
	6.67	4.37	6.74	0.00	0.00	
EDUC STAFF	2	11	7	0	0	20
	0.55	3.01	1.91	0.00	0.00	5.46
	10.00	55.00	35.00	0.00	0.00	
	4.44	4.80	7.87	0.00	0.00	
CHARGE NURSE	11	49	4	0	0	64
	3.01	13.39	1.09	0.00	0.00	17.49
	17.19	76.56	6.25	0.00	0.00	
	24.44	21.40	4.49	0.00	0.00	
STAFF NURSE	26	119	12	0	1	158
	7.10	32.51	3.28	0.00	0.27	43.17
	16.46	75.32	7.59	0.00	0.63	
	57.78	51.97	13.48	0.00	50.00	
OTHER NURSE	3	25	18	1	1	48
	0.82	6.83	4.92	0.27	0.27	13.11
	6.25	52.08	37.50	2.08	2.08	
	6.67	10.92	20.22	100.00	50.00	
TOTAL	45	229	89	1	2	366
	12.30	62.57	24.32	0.27	0.55	100.00

TABLE 11B

BREAKDOWN OF NURSE CORPS SAMPLE BY BILLET AND MONTHS IN PRESENT JOB

FREQUENCY / PERCENT / ROW PCT / COL PCT	MISSING	1-12 MOS	13-24 MOS	25-36 MOS	>36 MOS	TOTAL
UIR NURS SERV	0	12	12	2	2	28
	.	3.31	3.31	0.55	0.55	7.71
	.	42.86	42.86	7.14	7.14	
	.	6.45	11.01	4.65	8.00	
EDUC COORD	0	16	10	3	0	29
	.	4.41	2.75	0.83	0.00	7.99
	.	55.17	34.48	10.34	0.00	
	.	8.60	9.17	6.98	0.00	
PT CARE COORD	0	13	3	2	1	19
	.	3.58	0.83	0.55	0.28	5.23
	.	68.42	15.79	10.53	5.26	
	.	6.99	2.75	4.65	4.00	
EDUC STAFF	0	13	6	1	0	20
	.	3.58	1.65	0.28	0.00	5.51
	.	65.00	30.00	5.00	0.00	
	.	6.99	5.50	2.33	0.00	
CHARGE NURSE	0	42	14	6	2	64
	.	11.57	3.86	1.65	0.55	17.63
	.	65.63	21.88	9.38	3.13	
	.	22.58	12.84	13.95	8.00	
STAFF NURSE	2	65	52	24	15	156
	.	17.91	14.33	6.61	4.13	42.98
	.	41.67	33.33	15.38	9.62	
	.	34.95	47.71	55.81	60.00	
OTHER NURSE	1	25	12	5	5	47
	.	6.89	3.31	1.38	1.38	12.95
	.	53.19	25.53	10.64	10.64	
	.	13.44	11.01	11.63	20.00	
TOTAL	.	186	109	43	25	363
	.	51.24	30.03	11.85	6.89	100.00

TABLE 12B

BREAKDOWN OF NURSE CORPS SAMPLE BY BILLET AND HOSPITAL TEACHING STATUS AND SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	LARGE TEACHING	FAMILY PRACTICE	MEDIUM SIZE	SMALL	TOTAL
DIR NURS SERV	4	5	10	9	28
	1.09	1.37	2.73	2.46	7.65
	14.29	17.86	35.71	32.14	
	3.13	7.46	9.26	14.29	
EDUC COORD	4	5	10	10	29
	1.09	1.37	2.73	2.73	7.92
	13.79	17.24	34.48	34.48	
	3.13	7.46	9.26	15.87	
PT CARE COORD	3	6	7	3	19
	0.82	1.64	1.91	0.82	5.19
	15.79	31.58	36.84	15.79	
	2.34	8.96	6.48	4.76	
EDUC STAFF	7	4	8	1	20
	1.91	1.09	2.19	0.27	5.46
	35.00	20.00	40.00	5.00	
	5.47	5.97	7.41	1.59	
CHARGE NURSE	20	9	19	16	64
	5.46	2.46	5.19	4.37	17.49
	31.25	14.06	29.69	25.00	
	15.63	13.43	17.59	25.40	
STAFF NURSE	77	25	41	15	158
	21.04	6.83	11.20	4.10	43.17
	48.73	15.82	25.95	9.49	
	60.16	37.31	37.96	23.81	
OTHER NURSE	13	13	13	9	48
	3.55	3.55	3.55	2.46	13.11
	27.08	27.08	27.08	18.75	
	10.16	19.40	12.04	14.29	
TOTAL	128	67	108	63	366
	34.97	18.31	29.51	17.21	100.00

APPENDIX C

APPENDIX C

EC TASK INVENTORY ITEM MEANS AND MULTIPLE COMPARISONS BY HOSPITAL SIZE

		Total Sample	A Large Teaching	B Family Practice	C Medium Size	D Small
1.	Supervise the activities of the training and education department.	4.80	4.78	4.81	4.81	4.80
2.	Prepare written plans of educational objectives and priorities.	4.67	4.64	4.72	4.67	4.65
3.	Make available a variety of education and training resources for the use of hospital staff.	4.66	4.70	4.71	4.62	4.60
4.	Develop and maintain a system for recording data about the education and training of personnel.	4.53	4.37[B]	4.60	4.62	4.59
5.	Read books, magazines, journals, and catalogues to keep current on education and training.	4.50	4.57	4.43	4.50	4.48
6.	Select education and training material and equipment.	4.48	4.40	4.53	4.52	4.52
7.	Prepare and distribute notices, bulletins, newsletters, and other educational information to the hospital staff.	4.47	4.40	4.49	4.50	4.52
8.	Prepare and manage the education and training budget.	4.45	4.35	4.51	4.50	4.49
9.	Upgrade his/her own personal knowledge and skills in the educational field.	4.44	4.42	4.53	4.44	4.45
10.	Plan and evaluate the effectiveness of orientation/indoctrination programs for new personnel.	4.43	4.30	4.37	4.43	4.41
11.	Evaluate education and training literature and related instructional materials.	4.42	4.38	4.44	4.41	4.48
12.	Maintain in-house educational course content materials.	4.40	4.35	4.43	4.39	4.46
13.	Prepare and distribute questionnaires to obtain staff input about educational needs and offerings.	4.35	4.30	4.37	4.37	4.37

NOTE 1. Task inventory items are rank ordered on the basis of total sample item means.

NOTE 2. Letters within columns designate a significant difference ($P < .05$, Scheffe' method) between the item mean in the column and the noted comparison group. Item standard deviations for each subgroup are available on request.

			A	B	C	D
14.	Develop training and education activities and/or services in response to requests from department heads.	4.34	4.23[D]	4.25	4.39	4.50
15.	Plan staff training and education programs.	4.34	4.33	4.23	4.36	4.41
16.	Inform management and administration of new developments in education and training.	4.33	4.29	4.12	4.32	4.45
17.	Maintain records documenting staff participation in educational programs.	4.33	4.16[CD]	4.29	4.43	4.47
18.	Record/report training and education expenditures to the administrative department.	4.31	4.28	4.23	4.34	4.38
19.	Serve as resource and provide opportunities to share info with personnel regarding continuing education activities and programs.	4.36	4.31	4.25	4.28	4.34
20.	Assist others in planning and developing instructional programs and/or materials.	4.29	4.27	4.28	4.33	4.26
21.	Develop criteria and design evaluation instruments for education and training materials and/or programs.	4.28	4.20	4.25	4.30	4.41
22.	Initiate or respond to correspondence regarding training and education department procedures, activities, and services.	4.27	4.13	4.25	4.33	4.44
23.	Review changes in hospital policies and procedures to determine their effect on the education department.	4.26	4.27	4.27	4.21	4.32
24.	Talk informally with department heads and administative staff in order to determine possible education and training activities.	4.25	4.18	4.35	4.30	4.20
25.	Prepare written reports about the education and training of personnel for the administrative and/or other departments.	4.25	4.18	4.13	4.33	4.34
26.	Operate a learning laboratory for CPR training and IV practice and certification.	4.23	4.22	4.31	4.19	4.23
27.	Confer with department heads and administrative staff to determine the effectiveness of education and training.	4.21	4.15	4.28	4.19	4.26
28.	Control and schedule the use of education and training facilities and equipment (slide projectors, manikins, films, etc.).	4.17	4.07	4.12	4.30	4.21
29.	Document expenditures incurred for educational offerings or programs.	4.16	4.08	4.09	4.21	4.24
30.	Provide, coordinate, develop, and maintain records for continuing education programs (i.e., state, national, U. S. Navy CEARP, or CNE programs).	4.16	4.03	4.12	4.29	4.21

			A	B	C	D
31.	Plan, develop and coordinate training and education department programs with other agencies (i.e., educational institutions, government agencies.	4.16	4.14	4.08	4.13	4.30
32.	Requisition special equipment and furnishings for education and training.	4.15	4.08	4.08	4.19	4.28
33.	Plan and document certification, recertification, and licensure of staff personnel.	4.12	4.11	4.06	4.20	4.08
34.	Give talks or speeches to various groups regarding hospital education and training programs.	4.10	4.09	3.97	4.09	4.21
35.	Be a participating member of all hospital education committees.	4.09	3.93	4.23	4.09	4.23
36.	Provide educational assistance to outlying branch clinics.	4.08	3.84	4.14	4.27	4.11
37.	Evaluate the cost effectiveness of education and training programs.	4.07	3.97	4.04	4.18	4.07
38.	Represent the hospital at meetings with other educational agencies or organizations.	4.07	4.07	4.16	4.07	3.99
39.	Plan the arrangement or management of education and training department spaces, furniture, and equipment to meet changing work requirements.	4.05	3.91[C]	4.04	4.16	4.12
40.	Conduct carefully planned interviews with department heads, administrative staff, and other personnel in order to determine possible education and training activities.	4.04	4.04	4.01	4.00	4.22
41.	Develop or provide assistance in developing training aids, (i.e., art work and transparencies).	4.04	4.01	4.13	3.99	4.11
42.	Analyze current hospital problems or interests in order to determine the need for new education and training programs or changes in existing programs.	4.01	4.04	4.12	3.92	4.01
43.	Work with outside experts in developing education and training programs.	3.99	4.00	3.95	3.98	4.05
44.	Document military advancement and training requirements and conduct military advancement training.	3.96	3.80	3.91	4.06	4.10
45.	Plan and conduct programs for personnel on all 3 shifts.	3.95	4.11	3.81	3.84	3.99
46.	Counsel hospital personnel regarding education and training related to their career goals.	3.90	3.94	3.88	3.84	3.96
47.	Analyze existing organizational policies and procedures to determine if any mandate education and training.	3.90	3.93	3.89	3.81	3.99
48.	Control the schedules and assignments of personnel when they are in an orientation/indoctrination program.	3.89	3.73	3.96	4.06	3.79

		A	B	C	D
49.	Develop proposals and conduct research to evaluate the impact of education department progams on quality of patient care.	3.83	3.96	3.69	3.79	3.83
50.	Recommend appropriate training and education to resolve performance problems in the hospital.	3.80	3.76	3.67	3.90	3.84
51.	Attend the meetings of professional organizations (e.g., ASHET, ANA, ACHA, AMA).	3.78	3.83	3.77	3.67	3.87
52.	Analyze the job descriptions of various hospital staff to determine education and training needs.	3.76	3.82	3.65	3.73	3.78
53.	Coordinate schedules and the use of facilities with faculty members if the facility is used for clinical experience by affiliated professional schools and programs.	3.70	3.67	3.64	3.77	3.71
54.	Assess the need for and plan patient care programs.	3.70	3.63	3.60	3.80	3.75
55.	Serve as a participating committee member of committees to review various hospital policies.	3.68	3.74	3.87	3.60	3.52
56.	Evaluate changes in performance resulting from participation in training and education programs.	3.66	3.81	3.63	3.47	3.73
57.	Provide limited reference materials to all personnel.	3.57	3.46	3.51	3.72	3.54
58.	Plan community medical education programs in conjunction with other health care agencies or facilities.	3.54	3.41	3.56	3.55	3.72
59.	Serve as a fleet education liaison contact point to ships in the local area.	3.51	3.46	3.56	3.51	3.54
60.	Be a participating member of the Credentials and Quality Assurance Committees.	3.40	3.38	3.60	3.42	3.24
61.	Conduct or serve as a mediator in departmental decision-making meetings.	3.40	3.51	3.51	3.33	3.27
62.	Assess and analyze employee learning needs using multiple sources of written information, personal observations, incident/accident reports, quality assurance reviews, and anecdotal notes.	3.37	3.39	3.35	3.30	3.48
63.	Participate in community projects.	3.35	3.23	3.32	3.39	3.49
64.	Arrange for hospital employees to attend education and training activities outside the hospital.	3.27	3.41	3.12	3.23	3.22
65.	Conduct programs for hospital volunteers.	3.25	3.25	3.24	3.20	3.35
66.	Establish policies for educational funding (including TAD funding).	3.19	3.46 BD	2.97	3.16	2.99

			A	B	C	D
67.	Provide and supervise health care provider on-the-job training for procedures and tasks in the clinical setting.	3.18	3.31	3.07	3.16	3.09
68.	Serve as a participating member of committees to establish hospital budget priorities.	3.08	3.14	3.01	3.05	3.09
69.	Serve as a participating committee member to solve specific hospital problems.	3.04	2.94	3.21	3.01	3.12
70.	Prepare written reports about current health care trends and issues for the administrative and/or other departments.	3.04	3.12	2.91	3.03	3.05
71.	Serve as a liaison to Navy recruiters.	2.95	2.87	2.91	2.99	3.05
72.	Plan task analysis studies to help specify the skills and knowledge required for various health care provider jobs in the hospital.	2.95	3.01	2.97	2.83	3.07
73.	Assist the administrative staff in planning decision-making meetings.	2.71	2.74	2.73	2.70	2.67
74.	Conduct tours of the facility for outside groups.	2.66	2.58	2.67	2.67	2.77
75.	Conduct new product testing.	2.48	2.62	2.33	2.44	2.41
76.	Counsel hospital personnel regarding work-related problems.	2.21	2.30	2.13	2.21	2.13
77.	If a nurse, "routinely" fill in and relieve supervisors and ward personnel.	2.17	2.39	1.97	2.10	2.11
78.	Mediate differences among other unit managers and among other hospital staff.	2.04	2.08	2.01	2.08	1.95

APPENDIX D

APPENDIX D

TABLE 1D

BREAKDOWN OF EC RESPONSES TO QUESTION: IS EC JOB FULL OR PART-TIME?

FREQUENCY / PERCENT / ROW PCT / COL PCT	FULL TIME	COLLATERAL DUTY	TOTAL
LARGE TEACHING	3 10.34 75.00 11.54	1 3.45 25.00 33.33	4 13.79
FAMILY PRACTICE	5 17.24 100.00 19.23	0 0.00 0.00 0.00	5 17.24
MEDIUM SIZE	10 34.48 100.00 38.46	0 0.00 0.00 0.00	10 34.48
SMALL	8 27.59 80.00 30.77	2 6.90 20.00 66.67	10 34.48
TOTAL	26 89.66	3 10.34	29 100.00

TABLE 3E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO WHETHER EC SHOULD ATTEND INSTRUCTOR TRAINING SCHOOL BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	NO	YES	MISSING	TOTAL
LARGE TEACHING	23	111	3	137
	5.36	25.87	0.70	31.93
	16.79	81.02	2.19	
	42.59	30.00	60.00	
FAMILY PRACTICE	8	67	1	76
	1.86	15.62	0.23	17.72
	10.53	88.16	1.32	
	14.81	18.11	20.00	
MEDIUM SIZE	14	119	1	134
	3.26	27.74	0.23	31.24
	10.45	88.81	0.75	
	25.93	32.16	20.00	
SMALL	9	73	0	82
	2.10	17.02	0.00	19.11
	10.98	89.02	0.00	
	16.67	19.73	0.00	
TOTAL	54	370	5	429
	12.59	86.25	1.17	100.00

TABLE 2E

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSE TO WHETHER EC SHOULD ATTEND INSTRUCTOR TRAINING SCHOOL BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	NO	YES	MISSING	TOTAL
DIR NURS SERV	4	24	0	28
	1.09	6.56	0.00	7.65
	14.29	85.71	0.00	
	9.52	7.52	0.00	
EDUC COORD	8	20	1	29
	2.19	5.46	0.27	7.92
	27.59	68.97	3.45	
	19.05	6.27	20.00	
PT CARE COORD	1	18	0	19
	0.27	4.92	0.00	5.19
	5.26	94.74	0.00	
	2.38	5.64	0.00	
EDUC STAFF	4	16	0	20
	1.09	4.37	0.00	5.46
	20.00	80.00	0.00	
	9.52	5.02	0.00	
CHARGE NURSE	6	57	1	64
	1.64	15.57	0.27	17.49
	9.38	89.06	1.56	
	14.29	17.87	20.00	
STAFF NURSE	16	140	2	158
	4.37	38.25	0.55	43.17
	10.13	88.61	1.27	
	38.10	43.89	40.00	
OTHER NURSE	3	44	1	48
	0.82	12.02	0.27	13.11
	6.25	91.67	2.08	
	7.14	13.79	20.00	
TOTAL	42	319	5	366
	11.48	87.16	1.37	100.00

APPENDIX E

TABLE 1E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO WHETHER EC SHOULD ATTEND INSTRUCTOR TRAINING SCHOOL BY JOB GROUP

FREQUENCY / PERCENT / ROW PCT / COL PCT	NO	YES	MISSING	TOTAL
COMMAND OFFICER	2	17	0	19
	0.47	3.96	0.00	4.43
	10.53	89.47	0.00	
	3.70	4.59	0.00	
EXEC OFFICER	5	21	0	26
	1.17	4.90	0.00	6.06
	19.23	80.77	0.00	
	9.26	5.68	0.00	
DIR ADMIN SERV	5	13	0	18
	1.17	3.03	0.00	4.20
	27.78	72.22	0.00	
	9.26	3.51	0.00	
DIR NURS SERV	4	24	0	28
	0.93	5.59	0.00	6.53
	14.29	85.71	0.00	
	7.41	6.49	0.00	
EDUC COORD	8	20	1	29
	1.86	4.66	0.23	6.76
	27.59	68.97	3.45	
	14.81	5.41	20.00	
NUR CORPS SAMPLE	30	275	4	309
	6.99	64.10	0.93	72.03
	9.71	89.00	1.29	
	55.56	74.32	80.00	
TOTAL	54	370	5	429
	12.59	86.25	1.17	100.00

APPENDIX E

TABLE 11D

BREAKDOWN OF EC RESPONSES REGARDING WHO THEY SHOULD REPORT DIRECTLY TO BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	COMMAND OFFICER	EXEC OFFICER	DIR NURS SERV	DIR ADMIN SERV	MISSING	TOTAL
LARGE TEACHING	1	1	0	2	0	4
	3.45	3.45	0.00	6.90	0.00	13.79
	25.00	25.00	0.00	50.00	0.00	
	25.00	8.33	0.00	25.00	0.00	
FAMILY PRACTICE	0	4	0	1	0	5
	0.00	13.79	0.00	3.45	0.00	17.24
	0.00	80.00	0.00	20.00	0.00	
	0.00	33.33	0.00	12.50	0.00	
MEDIUM SIZE	0	3	2	4	1	10
	0.00	10.34	6.90	13.79	3.45	34.48
	0.00	30.00	20.00	40.00	10.00	
	0.00	25.00	100.00	50.00	33.33	
SMALL	3	4	0	1	2	10
	10.34	13.79	0.00	3.45	6.90	34.48
	30.00	40.00	0.00	10.00	20.00	
	75.00	33.33	0.00	12.50	66.67	
TOTAL	4	12	2	8	3	29
	13.79	41.38	6.90	27.59	10.34	100.00

TABLE 10D

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO PERSONNEL EC RESPONSIBILITIES SHOULD ENCOMPASS BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	ALL PERSONNEL	ALL NON PHYSICIA	NURSE & CORPSMEN	MISSING	TOTAL
LARGE TEACHING	81	29	26	1	137
	18.88	6.76	6.06	0.23	31.93
	59.12	21.17	18.98	0.73	
	25.71	54.72	44.07	50.00	
FAMILY PRACTICE	59	8	8	1	76
	13.75	1.86	1.86	0.23	17.72
	77.63	10.53	10.53	1.32	
	18.73	15.09	13.56	50.00	
MEDIUM SIZE	112	7	15	0	134
	26.11	1.63	3.50	0.00	31.24
	83.58	5.22	11.19	0.00	
	35.56	13.21	25.42	0.00	
SMALL	63	9	10	0	82
	14.69	2.10	2.33	0.00	19.11
	76.83	10.98	12.20	0.00	
	20.00	16.98	16.95	0.00	
TOTAL	315	53	59	2	429
	73.43	12.35	13.75	0.47	100.00

TABLE 9D

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSES TO PERSONNEL EC RESPONSIBILITIES SHOULD ENCOMPASS BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	ALL PERSONNEL	ALL NON PHYSICIA	NURSE & CORPSMEN	MISSING	TOTAL
DIR NURS SERV	24	3	1	0	28
	6.56	0.82	0.27	0.00	7.65
	85.71	10.71	3.57	0.00	
	9.23	6.52	1.72	0.00	
EDUC COORD	25	2	2	0	29
	6.83	0.55	0.55	0.00	7.92
	86.21	6.90	6.90	0.00	
	9.62	4.35	3.45	0.00	
PT CARE COORD	14	1	4	0	19
	3.83	0.27	1.09	0.00	5.19
	73.68	5.26	21.05	0.00	
	5.38	2.17	6.90	0.00	
EDUC STAFF	19	0	1	0	20
	5.19	0.00	0.27	0.00	5.46
	95.00	0.00	5.00	0.00	
	7.31	0.00	1.72	0.00	
CHARGE NURSE	41	9	14	0	64
	11.20	2.46	3.83	0.00	17.49
	64.06	14.06	21.88	0.00	
	15.77	19.57	24.14	0.00	
STAFF NURSE	101	24	32	1	158
	27.60	6.56	8.74	0.27	43.17
	63.92	15.19	20.25	0.63	
	38.85	52.17	55.17	50.00	
OTHER NURSE	36	7	4	1	48
	9.84	1.91	1.09	0.27	13.11
	75.00	14.58	8.33	2.08	
	13.85	15.22	6.90	50.00	
TOTAL	260	46	58	2	366
	71.04	12.57	15.85	0.55	100.00

TABLE 8D

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO PERSONNEL EC RESPONSIBILITIES SHOULD ENCOMPASS BY JOB GROUP

FREQUENCY / PERCENT / ROW PCT / COL PCT	ALL PERSONNEL	ALL NON PHYSICIA	NURSE & CORPSMEN	MISSING	TOTAL
COMMAND OFFICER	17	2	0	0	19
	3.96	0.47	0.00	0.00	4.43
	89.47	10.53	0.00	0.00	
	5.40	3.77	0.00	0.00	
EXEC OFFICER	22	3	1	0	26
	5.13	0.70	0.23	0.00	6.06
	84.62	11.54	3.85	0.00	
	6.98	5.66	1.69	0.00	
DIR ADMIN SERV	16	2	0	0	18
	3.73	0.47	0.00	0.00	4.20
	88.89	11.11	0.00	0.00	
	5.08	3.77	0.00	0.00	
DIR NURS SERV	24	3	1	0	28
	5.59	0.70	0.23	0.00	6.53
	85.71	10.71	3.57	0.00	
	7.62	5.66	1.69	0.00	
EDUC COORD	25	2	2	0	29
	5.83	0.47	0.47	0.00	6.76
	86.21	6.90	6.90	0.00	
	7.94	3.77	3.39	0.00	
NUR CORPS SAMPLE	211	41	55	2	309
	49.18	9.56	12.82	0.47	72.03
	68.28	13.27	17.80	0.65	
	66.98	77.36	93.22	100.00	
TOTAL	315	53	59	2	429
	73.43	12.35	13.75	0.47	100.00

TABLE 7D

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO HOW NURSING EDUCATION SHOULD BE ORGANIZED BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	WITHIN NURSING	HOSPITAL WIDE	MISSING	TOTAL
LARGE TEACHING	48	87	2	137
	11.19	20.28	0.47	31.93
	35.04	63.50	1.46	
	39.02	29.00	33.33	
FAMILY PRACTICE	19	56	1	76
	4.43	13.05	0.23	17.72
	25.00	73.68	1.32	
	15.45	18.67	16.67	
MEDIUM SIZE	34	98	2	134
	7.93	22.84	0.47	31.24
	25.37	73.13	1.49	
	27.64	32.67	33.33	
SMALL	22	59	1	82
	5.13	13.75	0.23	19.11
	26.83	71.95	1.22	
	17.89	19.67	16.67	
TOTAL	123	300	6	429
	28.67	69.93	1.40	100.00

TABLE 6D

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSES TO HOW NURSING EDUCATION SHOULD BE ORGANIZED BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	WITHIN NURSING	HOSPITAL WIDE	MISSING	TOTAL
DIR NURS SERV	9	19	0	28
	2.46	5.19	0.00	7.65
	32.14	67.86	0.00	
	7.69	7.79	0.00	
EDUC COORD	5	24	0	29
	1.37	6.56	0.00	7.92
	17.24	82.76	0.00	
	4.27	9.84	0.00	
PT CARE COORD	5	14	0	19
	1.37	3.83	0.00	5.19
	26.32	73.68	0.00	
	4.27	5.74	0.00	
EDUC STAFF	1	18	1	20
	0.27	4.92	0.27	5.46
	5.00	90.00	5.00	
	0.85	7.38	20.00	
CHARGE NURSE	26	38	0	64
	7.10	10.38	0.00	17.49
	40.63	59.38	0.00	
	22.22	15.57	0.00	
STAFF NURSE	61	94	3	158
	16.67	25.68	0.82	43.17
	38.61	59.49	1.90	
	52.14	38.52	60.00	
OTHER NURSE	10	37	1	48
	2.73	10.11	0.27	13.11
	20.83	77.08	2.08	
	8.55	15.16	20.00	
TOTAL	117	244	5	366
	31.97	66.67	1.37	100.00

TABLE 5D

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO HOW NURSING EDUCATION SHOULD BE ORGANIZED BY JOB GROUPS

FREQUENCY / PERCENT / ROW PCT / COL PCT	WITHIN NURSING	HOSPITAL WIDE	MISSING	TOTAL
COMMAND OFFICER	1	18	0	19
	0.23	4.20	0.00	4.43
	5.26	94.74	0.00	
	0.81	6.00	0.00	
EXEC OFFICER	3	22	1	26
	0.70	5.13	0.23	6.06
	11.54	84.62	3.85	
	2.44	7.33	16.67	
DIR ADMIN SERV	2	16	0	18
	0.47	3.73	0.00	4.20
	11.11	88.89	0.00	
	1.63	5.33	0.00	
DIR NURS SERV	9	19	0	28
	2.10	4.43	0.00	6.53
	32.14	67.86	0.00	
	7.32	6.33	0.00	
EDUC COORD	5	24	0	29
	1.17	5.59	0.00	6.76
	17.24	82.76	0.00	
	4.07	8.00	0.00	
NUR CORPS SAMPLE	103	201	5	309
	24.01	46.85	1.17	72.03
	33.33	65.05	1.62	
	83.74	67.00	83.33	
TOTAL	123	300	6	429
	28.67	69.93	1.40	100.00

TABLE 4D

BREAKDOWN OF CURRENT EC PERSONNEL RESPONSIBILITIES
BY HOSPITAL SIZE

FREQUENCY PERCENT ROW PCT COL PCT	ALL PERSONNEL	ALL NON PHYSICIA	NURSE & CORPSMEN	TOTAL
LARGE TEACHING	1 3.45 25.00 4.55	2 6.90 50.00 66.67	1 3.45 25.00	4 13.79
FAMILY PRACTICE	4 13.79 80.00 18.18	0 0.00 0.00 0.00	1 3.45 20.00 25.00	5 17.24
MEDIUM SIZE	9 31.03 90.00 40.91	1 3.45 10.00 33.33	0 0.00 0.00 0.00	10 34.48
SMALL	8 27.59 80.00 36.36	0 0.00 0.00 0.00	2 6.90 20.00 50.00	10 34.48
TOTAL	22 75.86	3 10.34	4 13.79	29 100.00

TABLE 3D

BREAKDOWN OF CURRENT PLACEMENT OF NURSING SERVICE EDUCATION IN HOSPITAL STRUCTURE BY HOSPITAL SIZE

FREQUENCY PERCENT ROW PCT COL PCT	WITHIN NURS SERV	HOSPITAL WIDE	TOTAL
LARGE TEACHING	1 3.45 25.00 16.67	3 10.34 75.00 13.04	4 13.79
FAMILY PRACTICE	1 3.45 20.00 16.67	4 13.79 80.00 17.39	5 17.24
MEDIUM SIZE	1 3.45 10.00 16.67	9 31.03 90.00 39.13	10 34.48
SMALL	3 10.34 30.00 50.00	7 24.14 70.00 30.43	10 34.48
TOTAL	6 20.69	23 79.31	29 100.00

TABLE 2D

BREAKDOWN OF EC IMMEDIATE SUPERVISORS
BY HOSPITAL SIZE

FREQUENCY PERCENT ROW PCT COL PCT	EXEC OFFICER	DIR NURS SERV	DIR ADMIN SERV	TOTAL
LARGE TEACHING	0 0.00 0.00 0.00	1 3.45 25.00 25.00	3 10.34 75.00 13.64	4 13.79
FAMILY PRACTICE	1 3.45 20.00 33.33	0 0.00 0.00 0.00	4 13.79 80.00 18.18	5 17.24
MEDIUM SIZE	0 0.00 0.00 0.00	1 3.45 10.00 25.00	9 31.03 90.00 40.91	10 34.48
SMALL	2 6.90 20.00 66.67	2 6.90 20.00 50.00	6 20.69 60.00 27.27	10 34.48
TOTAL	3 10.34	4 13.79	22 75.86	29 100.00

TABLE 4E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO MINIMUM LEVEL
FOR EC EDUCATION BY JOB GROUP

FREQUENCY PERCENT ROW PCT COL PCT	BACHELOR	MASTERS	DOCTORATE	MISSING	TOTAL
COMMAND OFFICER	15	4	0	0	19
	3.50	0.93	0.00	0.00	4.43
	78.95	21.05	0.00	0.00	
	8.11	1.70	0.00	0.00	
EXEC OFFICER	13	10	2	1	26
	3.03	2.33	0.47	0.23	6.06
	50.00	38.46	7.69	3.85	
	7.03	4.26	66.67	16.67	
DIR ADMIN SERV	8	8	0	2	18
	1.86	1.86	0.00	0.47	4.20
	44.44	44.44	0.00	11.11	
	4.32	3.40	0.00	33.33	
DIR NURS SERV	9	19	0	0	28
	2.10	4.43	0.00	0.00	6.53
	32.14	67.86	0.00	0.00	
	4.86	8.09	0.00	0.00	
EDUC COORD	8	21	0	0	29
	1.86	4.90	0.00	0.00	6.76
	27.59	72.41	0.00	0.00	
	4.32	8.94	0.00	0.00	
NUR CORPS SAMPLE	132	173	1	3	309
	30.77	40.33	0.23	0.70	72.03
	42.72	55.99	0.32	0.97	
	71.35	73.62	33.33	50.00	
TOTAL	185	235	3	6	429
	43.12	54.78	0.70	1.40	100.00

TABLE 5E

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSES TO MINIMUM LEVEL FOR EC EDUCATION BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	BACHELOR	MASTERS	DOCTORATE	MISSING	TOTAL
DIR NURS SERV	9	19	0	0	28
	2.46	5.19	0.00	0.00	7.65
	32.14	67.86	0.00	0.00	
	6.04	8.92	0.00	0.00	
EDUC COORD	8	21	0	0	29
	2.19	5.74	0.00	0.00	7.92
	27.59	72.41	0.00	0.00	
	5.37	9.86	0.00	0.00	
PT CARE COORD	9	10	0	0	19
	2.46	2.73	0.00	0.00	5.19
	47.37	52.63	0.00	0.00	
	6.04	4.69	0.00	0.00	
EDUC STAFF	3	17	0	0	20
	0.82	4.64	0.00	0.00	5.46
	15.00	85.00	0.00	0.00	
	2.01	7.98	0.00	0.00	
CHARGE NURSE	28	36	0	0	64
	7.65	9.84	0.00	0.00	17.49
	43.75	56.25	0.00	0.00	
	18.79	16.90	0.00	0.00	
STAFF NURSE	70	85	1	2	158
	19.13	23.22	0.27	0.55	43.17
	44.30	53.80	0.63	1.27	
	46.98	39.91	100.00	66.67	
CTHER NURSE	22	25	0	1	48
	6.01	6.83	0.00	0.27	13.11
	45.83	52.08	0.00	2.08	
	14.77	11.74	0.00	33.33	
TOTAL	149	213	1	3	366
	40.71	58.20	0.27	0.82	100.00

TABLE 6E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO MINIMUM LEVEL FOR EC EDUCATION BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	BACHELOR	MASTERS	DOCTORATE	MISSING	TOTAL
LARGE TEACHING	46	88	1	2	137
	10.72	20.51	0.23	0.47	31.93
	33.58	64.23	0.73	1.46	
	24.86	37.45	33.33	33.33	
FAMILY PRACTICE	22	53	0	1	76
	5.13	12.35	0.00	0.23	17.72
	28.95	69.74	0.00	1.32	
	11.89	22.55	0.00	16.67	
MEDIUM SIZE	63	68	2	1	134
	14.69	15.85	0.47	0.23	31.24
	47.01	50.75	1.49	0.75	
	34.05	28.94	66.67	16.67	
SMALL	54	26	0	2	82
	12.59	6.06	0.00	0.47	19.11
	65.85	31.71	0.00	2.44	
	29.19	11.06	0.00	33.33	
TOTAL	185	235	3	6	429
	43.12	54.78	0.70	1.40	100.00

TABLE 7E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO FOCUS OF EC GRADUATE PREPARATION BY JOB GROUP

FREQUENCY / PERCENT / ROW PCT / COL PCT	EDUCATION	ADMINISTRATION	ADMIN OF EDUC	OTHER	MISSING	TOTAL
COMMAND OFFICER	4	1	14	0	0	19
	0.93	0.23	3.26	0.00	0.00	4.43
	21.05	5.26	73.68	0.00	0.00	
	2.50	6.67	6.01	0.00	0.00	
EXEC OFFICER	7	2	13	2	2	26
	1.63	0.47	3.03	0.47	0.47	6.06
	26.92	7.69	50.00	7.69	7.69	
	4.38	13.33	5.58	13.33	33.33	
DIR ADMIN SERV	3	1	13	0	1	18
	0.70	0.23	3.03	0.00	0.23	4.20
	16.67	5.56	72.22	0.00	5.56	
	1.88	6.67	5.58	0.00	16.67	
DIR NURS SERV	8	0	19	1	0	28
	1.86	0.00	4.43	0.23	0.00	6.53
	28.57	0.00	67.86	3.57	0.00	
	5.00	0.00	8.15	6.67	0.00	
EDUC COORD	8	2	17	2	0	29
	1.86	0.47	3.96	0.47	0.00	6.76
	27.59	6.90	58.62	6.90	0.00	
	5.00	13.33	7.30	13.33	0.00	
NUR CORPS SAMPLE	130	9	157	10	3	309
	30.30	2.10	36.60	2.33	0.70	72.03
	42.07	2.91	50.81	3.24	0.97	
	81.25	60.00	67.38	66.67	50.00	
TOTAL	160	15	233	15	6	429
	37.30	3.50	54.31	3.50	1.40	100.00

TABLE 8E

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSES TO FOCUS OF EC GRADUATE PREPARATION BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	EDUCATION	ADMINISTRATION	ADMIN OF EDUC	OTHER	MISSING	TOTAL
DIR NURS SERV	8	0	19	1	0	28
	2.19	0.00	5.19	0.27	0.00	7.65
	28.57	0.00	67.86	3.57	0.00	
	5.48	0.00	9.84	7.69	0.00	
EDUC COORD	8	2	17	2	0	29
	2.19	0.55	4.64	0.55	0.00	7.92
	27.59	6.90	58.62	6.90	0.00	
	5.48	18.18	8.81	15.38	0.00	
PT CARE COORD	7	1	11	0	0	19
	1.91	0.27	3.01	0.00	0.00	5.19
	36.84	5.26	57.89	0.00	0.00	
	4.79	9.09	5.70	0.00	0.00	
EDUC STAFF	8	0	11	1	0	20
	2.19	0.00	3.01	0.27	0.00	5.46
	40.00	0.00	55.00	5.00	0.00	
	5.48	0.00	5.70	7.69	0.00	
CHARGE NURSE	27	2	34	1	0	64
	7.38	0.55	9.29	0.27	0.00	17.49
	42.19	3.13	53.13	1.56	0.00	
	18.49	18.18	17.62	7.69	0.00	
STAFF NURSE	71	4	74	8	1	158
	19.40	1.09	20.22	2.19	0.27	43.17
	44.94	2.53	46.84	5.06	0.63	
	48.63	36.36	38.34	61.54	33.33	
OTHER NURSE	17	2	27	0	2	48
	4.64	0.55	7.38	0.00	0.55	13.11
	35.42	4.17	56.25	0.00	4.17	
	11.64	18.18	13.99	0.00	66.67	
TOTAL	146	11	193	13	3	366
	39.89	3.01	52.73	3.55	0.82	100.00

TABLE 9E

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO FOCUS OF EC GRADUATE PREPARATION BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	EDUCATION	ADMINISTRATION	ADMIN OF EDUC	OTHER	MISSING	TOTAL
LARGE TEACHING	43	4	85	4	1	137
	10.02	0.93	19.81	0.93	0.23	31.93
	31.39	2.92	62.04	2.92	0.73	
	26.88	26.67	36.48	26.67	16.67	
FAMILY PRACTICE	29	1	41	3	2	76
	6.76	0.23	9.56	0.70	0.47	17.72
	38.16	1.32	53.95	3.95	2.63	
	18.13	6.67	17.60	20.00	33.33	
MEDIUM SIZE	54	6	67	6	1	134
	12.59	1.40	15.62	1.40	0.23	31.24
	40.30	4.48	50.00	4.48	0.75	
	33.75	40.00	28.76	40.00	16.67	
SMALL	34	4	40	2	2	82
	7.93	0.93	9.32	0.47	0.47	19.11
	41.46	4.88	48.78	2.44	2.44	
	21.25	26.67	17.17	13.33	33.33	
TOTAL	160	15	233	15	6	429
	37.30	3.50	54.31	3.50	1.40	100.00

APPENDIX F

APPENDIX F

TABLE 1F

BREAKDOWN OF EC RESPONSES TO EXTENT EC BILLET LEADS TO BURNOUT BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	MISSING	NOT AT ALL	SLIGHTLY	SOMEWHAT	QUITE	EXTREMELY	TOTAL
LARGE TEACHING	0	0	1	3	0	0	4
	0.00	0.00	3.45	10.34	0.00	0.00	13.79
	0.00	0.00	25.00	75.00	0.00	0.00	
	0.00	0.00	11.11	27.27	0.00	0.00	
FAMILY PRACTICE	0	0	2	2	0	1	5
	0.00	0.00	6.90	6.90	0.00	3.45	17.24
	0.00	0.00	40.00	40.00	0.00	20.00	
	0.00	0.00	22.22	18.18	0.00	25.00	
MEDIUM SIZE	0	1	2	4	1	2	10
	0.00	3.45	6.90	13.79	3.45	6.90	34.48
	0.00	10.00	20.00	40.00	10.00	20.00	
	0.00	100.00	22.22	36.36	50.00	50.00	
SMALL	2	0	4	2	1	1	10
	6.90	0.00	13.79	6.90	3.45	3.45	34.48
	20.00	0.00	40.00	20.00	10.00	10.00	
	100.00	0.00	44.44	18.18	50.00	25.00	
TOTAL	2	1	9	11	2	4	29
	6.90	3.45	31.03	37.93	6.90	13.79	100.00

TABLE 2F

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO EXTENT EC BILLET IS CAREER ENHANCING

FREQUENCY / PERCENT / ROW PCT / COL PCT	NOT AT ALL	SLIGHTLY	SOMEWHAT	QUITE	EXTREMELY	MISSING	TOTAL
COMMAND OFFICER	1	1	1	12	1	3	19
	0.23	0.23	0.23	2.80	0.23	0.70	4.43
	5.26	5.26	5.26	63.16	5.26	15.79	
	7.69	4.76	1.00	7.32	1.37	5.17	
EXEC OFFICER	2	2	7	6	4	5	26
	0.47	0.47	1.63	1.40	0.93	1.17	6.06
	7.69	7.69	26.92	23.08	15.38	19.23	
	15.38	9.52	7.00	3.66	5.48	8.62	
DIR ADMIN SERV	0	1	7	5	2	3	18
	0.00	0.23	1.63	1.17	0.47	0.70	4.20
	0.00	5.56	38.89	27.78	11.11	16.67	
	0.00	4.76	7.00	3.05	2.74	5.17	
DIR NURS SERV	1	0	3	12	10	2	28
	0.23	0.00	0.70	2.80	2.33	0.47	6.53
	3.57	0.00	10.71	42.86	35.71	7.14	
	7.69	0.00	3.00	7.32	13.70	3.45	
EDUC COORD	0	0	7	10	4	8	29
	0.00	0.00	1.63	2.33	0.93	1.86	6.76
	0.00	0.00	24.14	34.48	13.79	27.59	
	0.00	0.00	7.00	6.10	5.48	13.79	
NUR CORPS SAMPLE	9	17	75	119	52	37	309
	2.10	3.96	17.48	27.74	12.12	8.62	72.03
	2.91	5.50	24.27	38.51	16.83	11.97	
	69.23	80.95	75.00	72.56	71.23	63.79	
TOTAL	13	21	100	164	73	58	429
	3.03	4.90	23.31	38.23	17.02	13.52	100.00

TABLE 3F

BREAKDOWN OF NURSE CORPS SAMPLE RESPONSES TO EXTENT EC BILLET IS CAREER ENHANCING BY NURSE BILLET

FREQUENCY / PERCENT / ROW PCT / COL PCT	NOT AT ALL	SLIGHTLY	SOMEWHAT	QUITE	EXTREMELY	MISSING	TOTAL
DIR NURS SERV	1	0	3	12	10	2	28
	0.27	0.00	0.82	3.28	2.73	0.55	7.65
	3.57	0.00	10.71	42.86	35.71	7.14	
	10.00	0.00	3.53	8.51	15.15	4.26	
EDUC COORD	0	0	7	10	4	8	29
	0.00	0.00	1.91	2.73	1.09	2.19	7.92
	0.00	0.00	24.14	34.48	13.79	27.59	
	0.00	0.00	8.24	7.09	6.06	17.02	
PT CARE COORD	0	1	4	11	2	1	19
	0.00	0.27	1.09	3.01	0.55	0.27	5.19
	0.00	5.26	21.05	57.89	10.53	5.26	
	0.00	5.88	4.71	7.80	3.03	2.13	
EDUC STAFF	1	2	5	8	3	1	20
	0.27	0.55	1.37	2.19	0.82	0.27	5.46
	5.00	10.00	25.00	40.00	15.00	5.00	
	10.00	11.76	5.88	5.67	4.55	2.13	
CHARGE NURSE	2	4	15	27	9	7	64
	0.55	1.09	4.10	7.38	2.46	1.91	17.49
	3.13	6.25	23.44	42.19	14.06	10.94	
	20.00	23.53	17.65	19.15	13.64	14.89	
STAFF NURSE	3	7	39	58	34	17	158
	0.82	1.91	10.66	15.85	9.29	4.64	43.17
	1.90	4.43	24.68	36.71	21.52	10.76	
	30.00	41.18	45.88	41.13	51.52	36.17	
OTHER NURSE	3	3	12	15	4	11	48
	0.82	0.82	3.28	4.10	1.09	3.01	13.11
	6.25	6.25	25.00	31.25	8.33	22.92	
	30.00	17.65	14.12	10.64	6.06	23.40	
TOTAL	10	17	85	141	66	47	366
	2.73	4.64	23.22	38.52	18.03	12.84	100.00

TABLE 4F

BREAKDOWN OF TOTAL SAMPLE RESPONSES TO EXTENT EC BILLET IS CAREER ENHANCING BY HOSPITAL SIZE

FREQUENCY / PERCENT / ROW PCT / COL PCT	NOT AT ALL	SLIGHTLY	SOMEWHAT	QUITE	EXTREMELY	MISSING	TOTAL
LARGE TEACHING	4	3	31	51	30	18	137
	0.93	0.70	7.23	11.89	6.99	4.20	31.93
	2.92	2.19	22.63	37.23	21.90	13.14	
	30.77	14.29	31.00	31.10	41.10	31.03	
FAMILY PRACTICE	1	4	23	28	9	11	76
	0.23	0.93	5.36	6.53	2.10	2.56	17.72
	1.32	5.26	30.26	36.84	11.84	14.47	
	7.69	19.05	23.00	17.07	12.33	18.97	
MEDIUM SIZE	6	12	32	49	22	13	134
	1.40	2.80	7.46	11.42	5.13	3.03	31.24
	4.48	8.96	23.88	36.57	16.42	9.70	
	46.15	57.14	32.00	29.88	30.14	22.41	
SMALL	2	2	14	36	12	16	82
	0.47	0.47	3.26	8.39	2.80	3.73	19.11
	2.44	2.44	17.07	43.90	14.63	19.51	
	15.38	9.52	14.00	21.95	16.44	27.59	
TOTAL	13	21	100	164	73	58	429
	3.03	4.90	23.31	38.23	17.02	13.52	100.00

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